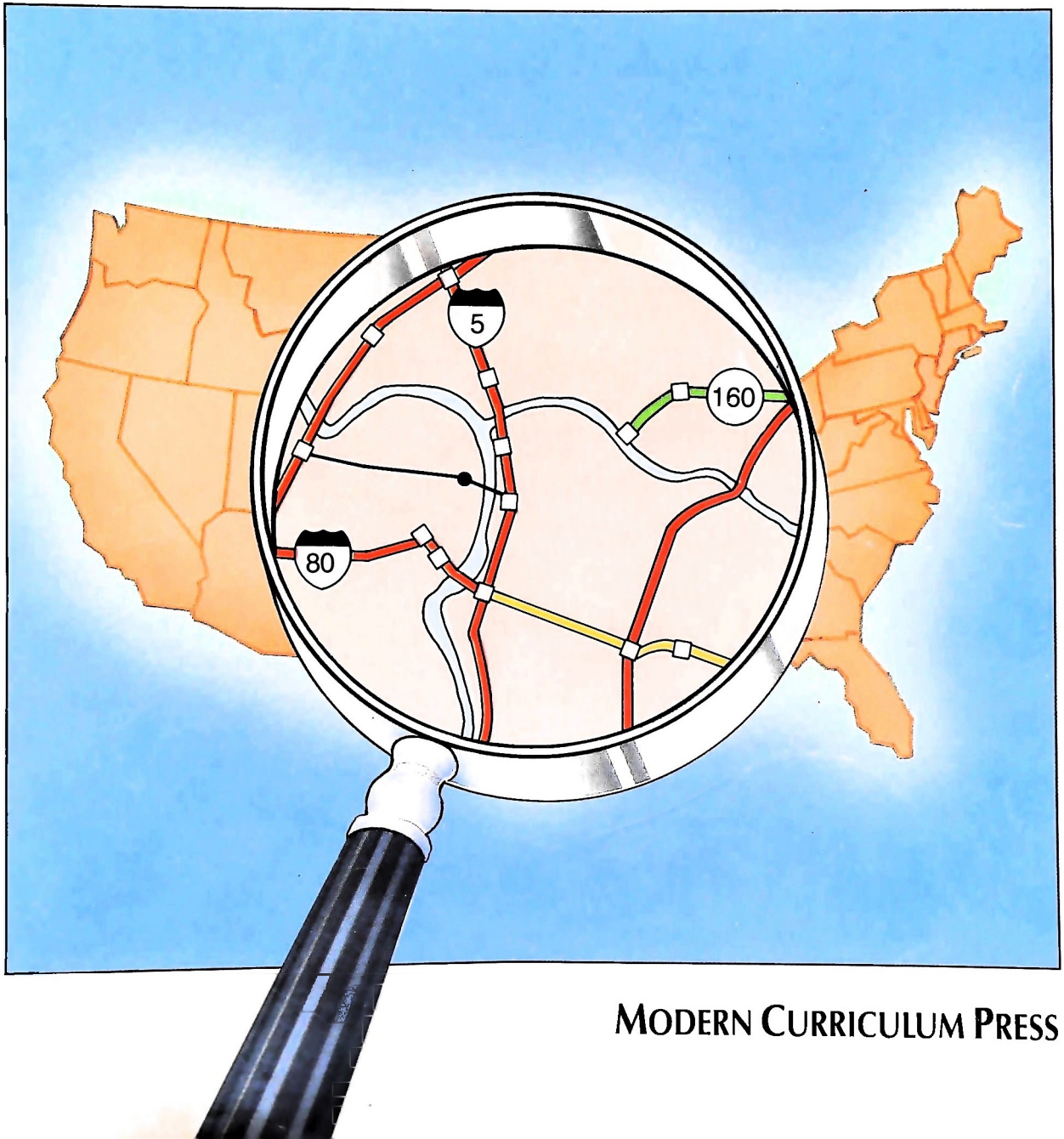


MAPS CHARTS GRAPHS

COMMUNITIES

C



MODERN CURRICULUM PRESS

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MAPS CHARTS GRAPHS

Communities

Level C

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Project Editor: *Marty Geyen*

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Photographs: 3, *Frost Publishing Group*; 4, 5, *Final Draft, Inc.*; 6a, 6b, 7b, *The Granger Collection, New York*; 7a, *San Francisco Visitors Bureau*; 8, *NASA*; 19a, *Stockphotos, Inc.*; 19b, *David R. Frazier/Photo Researchers, Inc.*; 33, *New York State Department of Commerce*; 36, *Modern Curriculum Press, Inc.*; 39, *Tom McHugh/Photo Researchers, Inc.*

Illustrations: *P C & F Inc.*

Maps and Graphs: *David Germon, Graphic Illustrator*

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Modern Curriculum Press, Inc.
A Division of Simon & Schuster
13900 Prospect Road
Cleveland, OH 44136

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Published simultaneously in Canada by Globe/Modern Curriculum Press, Toronto.

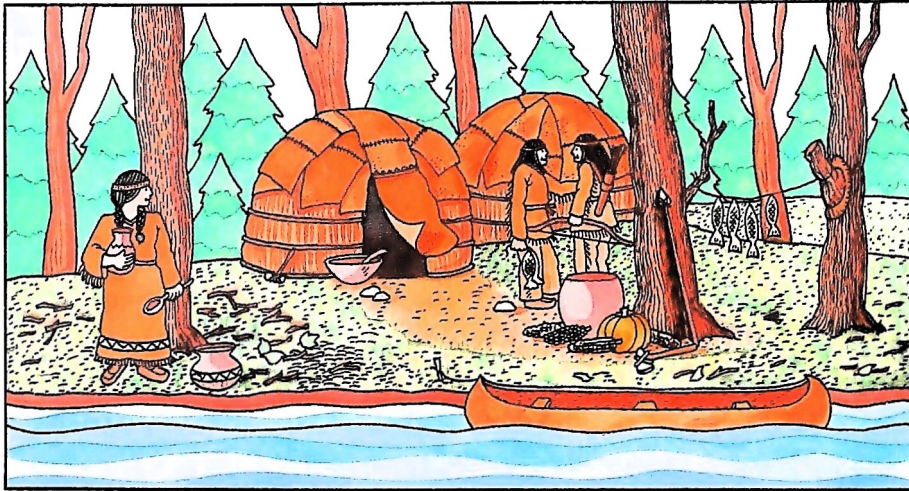
ISBN 0-8136-2134-8

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Reading a Picture

Learn to: find details in a picture
read a caption

Pictures are fun to look at. They can also be full of information. You can learn many things from pictures if you look carefully for details. The picture below shows an American Indian village long ago. Study the picture.



Circle the correct answer.

- How did the Indians in this village travel?
a. by wagon b. by horse c. by boat
- What kind of homes did these early Indians live in?
a. round huts of wood and hide
b. caves
c. log houses
- Where did these Indians get their water?
a. a well
b. a common barrel
c. a stream
- What were the tools like that the villagers used?
a. electric powered
b. made of stone and wood
c. very large and difficult to use
- Name two foods that these Indians ate.

- What clues can you find in the picture that tell you why the Indians built their village in this place?

Newspapers and magazines have pictures in them. They show important people and important things that happen. The **caption** tells more about the picture. Study the picture below and read the caption under it.



Clark Parker, age 9, was given an award Tuesday by the Fire Safety Club. Clark was given the award because he taught his class about fire safety rules.

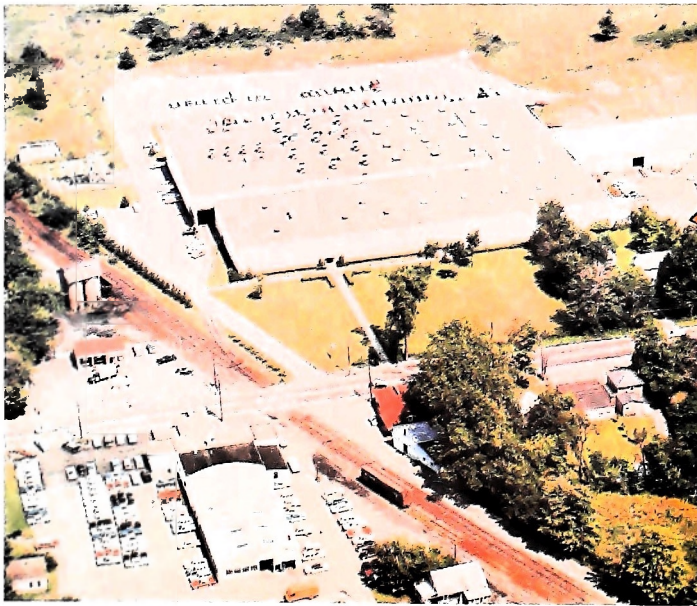
Circle the correct answer.

7. What is happening in the picture?
 - a. A boy is receiving an award.
 - b. A man is receiving an award.
 - c. A boy is teaching a man something.
8. Who is Clark Parker?
 - a. a teacher
 - b. a young boy
 - c. a fireman
9. What day was the award given?
 - a. Friday
 - b. Wednesday
 - c. Tuesday
10. Why was the award given?
 - a. Clark taught his friends about fire safety.
 - b. Clark sold the most fire hats.
 - c. Clark telephoned to report a fire.
11. What tells us Clark's exact age?
 - a. details in the picture
 - b. information in the caption
 - c. a story about Clark
12. There are words under the picture that tell about it. What are these words called?
 - a. a question
 - b. a caption
 - c. a story

What is a map?

Learn to: find details in an aerial photograph
compare details in a photograph and a map

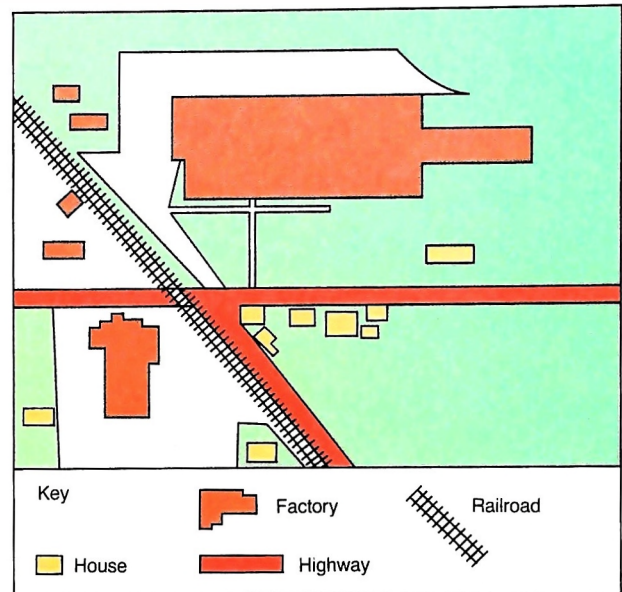
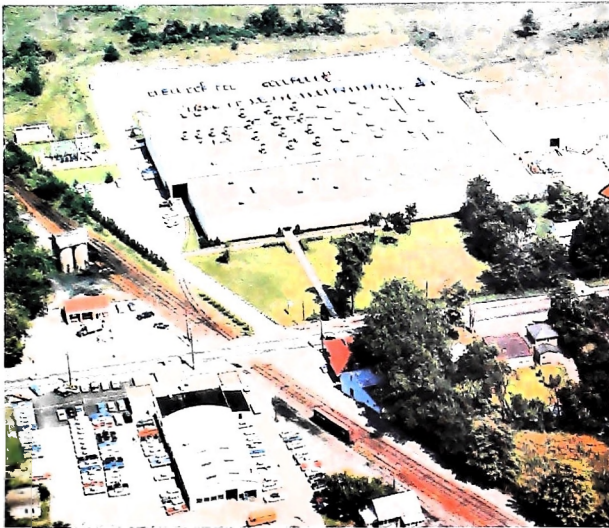
This photograph was taken from an airplane. It shows buildings, trees and streets as they look from above. This is called an **aerial photograph**. Map makers use aerial photographs to help them make maps. Look carefully at this aerial photograph.



Complete the following.

1. Put an X on the railroad tracks.
2. Draw a square around any tree.
3. Put an F on the largest building.
4. Circle a house.
5. Put an H on the highway.
6. What is an aerial photograph?
 - a. a picture taken from the ground
 - b. a picture taken from an airplane
 - c. a picture of an airport

Below is the same photograph with a map drawn of the area. You can see that the map is a flat drawing that shows many details of the area. Maps can show streets, buildings and railroads. Look carefully at the photograph and map.



Circle the correct answer.

7. What do both the map and photograph show?
 - a. buildings b. a lake c. an airplane
8. How is the railroad shown on the map?
 - a.
 - b.
 - c.
9. What is the largest building on both the map and the photograph?
 - a. factory b. church c. house
10. What do both the map and photograph show about the highway?
 - a. It is very crooked.
 - b. It crosses the railroad tracks.
 - c. It ends at the railroad tracks.
11. What is shown on the photograph that is not shown on the map?
 - a. trees b. buildings c. highways
12. What can you see when you compare the photograph and the map?
 - a. Both the map and photograph show cars.
 - b. Factories look like boxes on the map and like buildings on the photograph.
 - c. The photograph shows houses but the map doesn't.

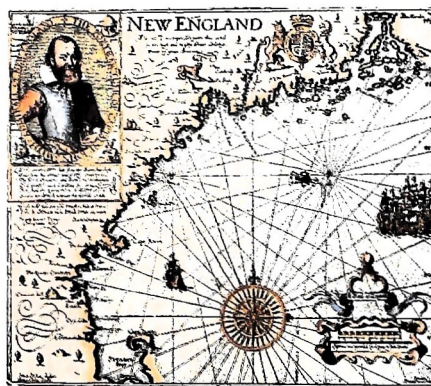
Map Making

Learn to: identify reasons why people make maps

Maps were invented long ago to help people find places. Maps are tools of communication. Early maps were made by people scratching in the dirt with sticks. Others were carved or painted on animal hides or stone. Later, people started drawing maps on paper-like materials.



Map 1
Early sea routes



Map 2
Early map of United States

Circle the correct answer.

- How were early maps made?
 - by scratching in the dirt
 - by carving on trees
 - by drawing on paper
- Why were maps invented?
 - to be given as gifts
 - to serve as art
 - to help people find places
- Circle the true statements below.
 - Maps were invented a few years ago.
 - Early maps were drawn by sailors and explorers.
 - Maps were invented to help travelers.
- Which map above shows an early map of the United States?
 - Map 1
 - Map 2
- Which map above shows early sailing routes?
 - Map 1
 - Map 2
- Why would it be useful to have a map drawn on paper?
 - It is easier to take on a trip.
 - It lasts longer.
 - It is more correct than other maps.

People who draw maps are called **cartographers**. Cartographers draw maps to show many different places and things. They often put their maps together in a book called an **atlas**.

Cartographers use many things to help them draw accurate maps. They often use a **survey** of a place. A survey is a careful measuring of an area, using special tools. Many community maps are drawn by using both a survey and an aerial photograph. Cartographers also use photographs of the earth taken by satellites in space.



An aerial photograph of the city of San Francisco, California.



A view of Jupiter taken by a satellite.

Complete the following.

7. What is a survey? _____

8. What is a cartographer? _____

9. What kind of book is an atlas? _____

10. What does a cartographer use to draw a community map?

11. How was the picture of Jupiter above, taken?

12. Does an aerial photograph or satellite photograph show buildings and streets of a city?

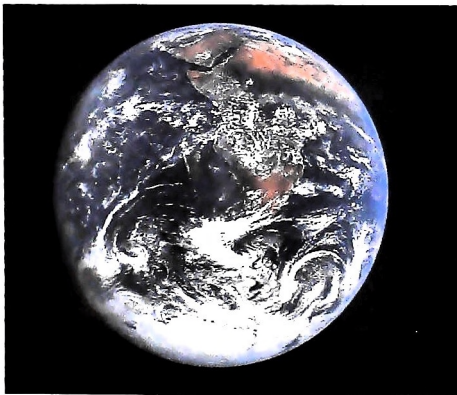
What is a globe?

Learn to: find land and water on a globe

Have you seen pictures of the earth as it looks from space? When the astronauts landed on the moon, they looked back at earth. This picture shows what they saw. This is what the earth looked like from out in space.

Next to the picture of the earth is a picture of a globe. A **globe** is a round object, or sphere. It is a model of the earth. A model is a small copy of a larger object. For example, a model car is a small copy of a larger, real car.

When you look at a globe, you can only see one side of it at a time. You are seeing half of the earth. This is a **hemisphere**. Hemisphere means half of a sphere.



Circle the correct answer.

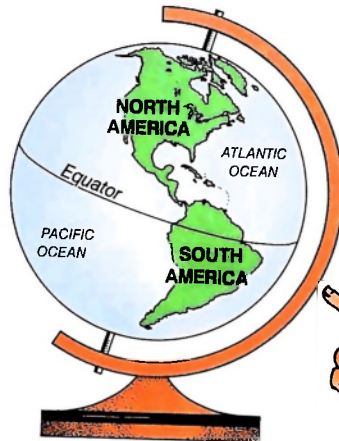
1. What shape is a globe?
 - a. square
 - b. sphere
 - c. triangle
2. How is a globe different from the earth?
 - a. It is smaller than the earth.
 - b. It is larger than the earth.
 - c. It is a different shape than the earth.
3. What does hemisphere mean?
 - a. a whole sphere
 - b. all of the earth
 - c. half of a sphere
4. What is one way a globe of the earth is different than a map of the earth?
 - a. A globe is larger than a map.
 - b. A globe is round and a map is flat.
 - c. A globe often is found in a library.

Globes show land and water areas of our earth, just as maps do. Globes have color to show land and water. Green or brown is used to show land areas. Blue shows water.

The largest land areas on earth are called **continents**. Small areas of land surrounded by water are **islands**. The largest bodies of water are called **oceans**.

This picture of a globe shows the continents and oceans of the western half of the earth. It shows the **Western Hemisphere**.

WESTERN HEMISPHERE



Circle the correct answer.

5. What are the largest land areas on earth called?
 - a. islands
 - b. continents
 - c. oceans
6. What do the blue areas on a globe show?
 - a. land areas
 - b. sky
 - c. water
7. What two things can you see on a globe?
 - a. land and sky
 - b. land and water
 - c. water and sky
8. What is an island?
 - a. a small area of land surrounded by water
 - b. the largest land area
 - c. the largest body of water
9. What two oceans are shown on this globe?
 - a. Pacific Ocean and Indian Ocean
 - b. Atlantic Ocean and Pacific Ocean
 - c. Atlantic Ocean and Indian Ocean
10. What two land areas can be seen on this globe?
 - a. Africa and Asia
 - b. North America and Africa
 - c. North America and South America
11. What color besides green is often used to show land areas on a globe?
 - a. blue
 - b. brown
 - c. orange
12. What can you see about the two continents shown on this globe?
 - a. They are connected.
 - b. They are far apart.
 - c. The Pacific Ocean lies on both sides of them.

Cardinal Directions

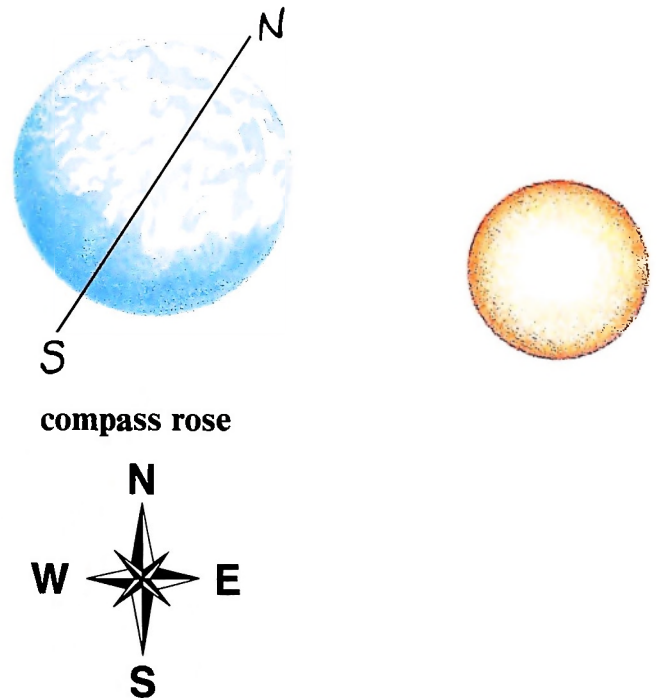
Learn to: use the four cardinal directions

To locate a place on earth, you need directions to guide you. The four main directions on a globe are **north**, **south**, **east** and **west**. These are called **cardinal directions**.

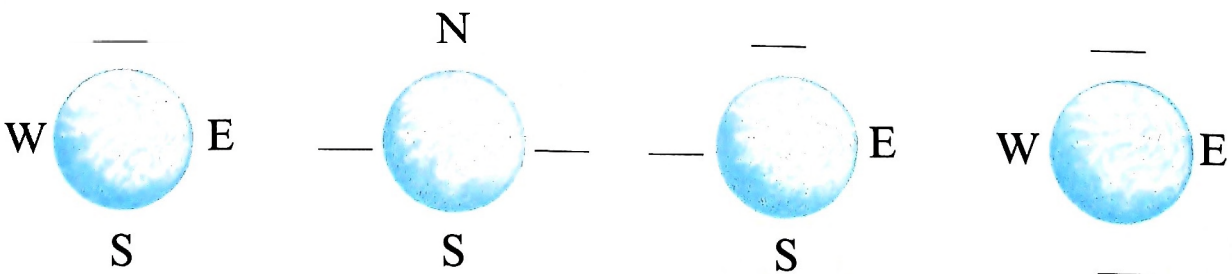
The picture of the earth below shows that the direction north is toward the North Pole. The direction opposite north is south. South is toward the South Pole.

In the morning, the sun looks like it is rising in the direction east. If you are facing north, east is on your right. The direction opposite east is west. In the evening, the sun looks like it is setting in the west.

A **compass rose** shows you where north, south, east and west are on the globe. The compass rose shows only the first letter of the direction name.

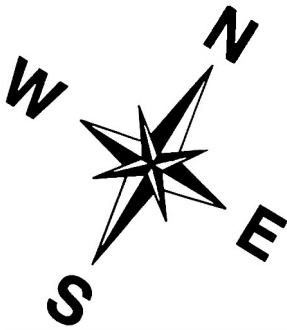


Look carefully at the compass rose. Then fill in the missing direction letters on the pictures of the earth below.



If you stand outside in the sunshine, exactly at noon, your shadow will always point north. South is behind you.

Now, if you hold out your right arm, your arm will be pointing east. East is always on your right side if you are facing north. Now, still facing north, hold out your left arm. Your left arm will be pointing west. West is always on your left when you are facing north. Sometimes north is shown with a single arrow and the letter N.



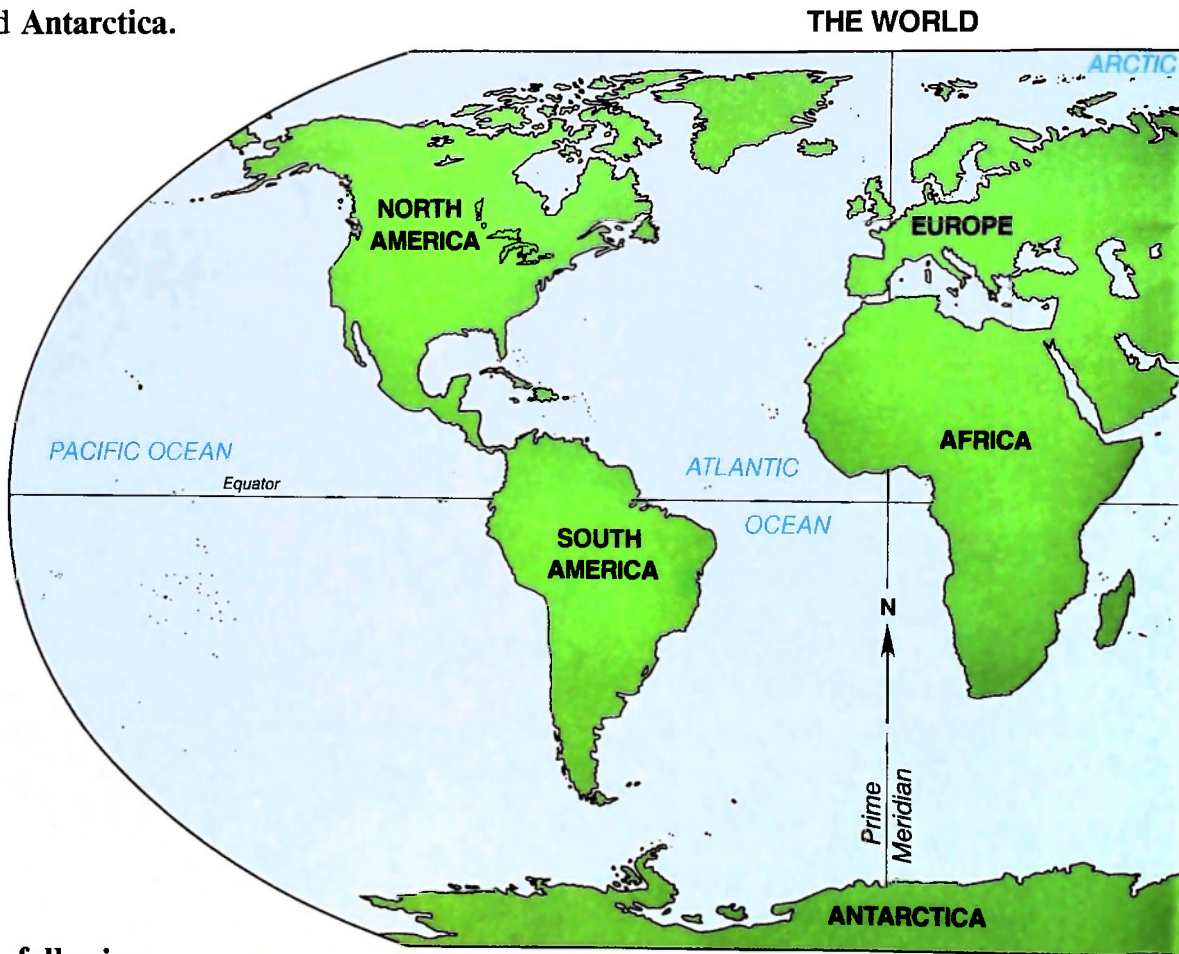
Circle the correct answer.

1. What direction is opposite north?
a. south b. east c. west
2. What direction is opposite east?
a. north b. south c. west
3. How many cardinal directions are there?
a. three c. five
b. two d. four
4. What does a compass rose show you on a map?
a. land c. water
b. direction d. distance
5. If you stand in the sun at noon, in what direction will your shadow point?
a. north c. east
b. south d. west
6. If you face north, what direction is to your left?
a. south b. east c. west
7. What direction is opposite west?
a. north b. south c. east
8. If you face south, what direction is behind you?
a. north b. east c. west

The World

Learn to: locate continents and oceans on a map of the world

This map shows the whole world. On this map, it is easy to see that the world is made of large areas of land and water. You have learned that the largest land areas are called continents. There are seven continents in the world: **North America, South America, Europe, Africa, Asia, Australia and Antarctica.**



Complete the following.

1. Find North America and circle it.
2. Find Asia and draw an X on it.
3. Draw a line from South America to Europe.
4. Find the Indian Ocean. Draw a triangle on it.

The **equator** is an imaginary line. It is halfway between the North Pole and the South Pole. Cartographers draw the equator to show the middle of the earth. Half of the earth is above the equator. This is the **Northern Hemisphere**. The half of the earth below, or south of the equator, is the **Southern Hemisphere**.

Another line that is shown on this map is the **Prime Meridian**. It runs from the North Pole to the South Pole.

There are four oceans in the world. They are the **Pacific Ocean**, **Atlantic Ocean**, **Indian Ocean** and **Arctic Ocean**.



Complete the following.

5. Find the equator. Draw a blue line along it.
6. Find the Prime Meridian. Draw a red line along it.
7. Which continent lies north of Africa?
 - a. North America
 - b. South America
 - c. Europe
8. Which continent lies south of North America?
 - a. South America
 - b. Asia
 - c. Australia
9. Which ocean lies east of Asia?
 - a. Atlantic Ocean
 - b. Indian Ocean
 - c. Pacific Ocean
10. Which continent lies farthest south?
 - a. South America
 - b. Antarctica
 - c. Europe

Using Directions

Learn to: use cardinal directions to locate places

Maps use directions just as globes do. A map is like a globe that has been flattened. You need to know where north, south, east and west are, to be able to locate places on a map.

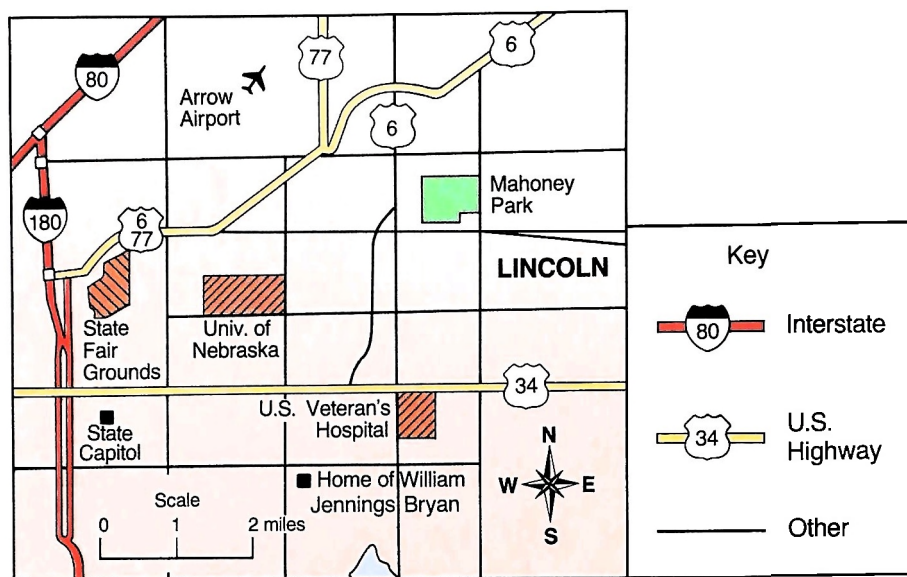
Look carefully at the map and the globe below. They both show the same part of the earth.



Circle the correct answer. Remember to use the compass rose.

- Find the United States. In what direction would you travel to reach Canada?
 - north
 - south
 - east
 - west
- Find Canada. In what direction would you travel to reach the Pacific Ocean?
 - north
 - south
 - east
 - west
- Find South America. In what direction would you travel to reach Canada?
 - north
 - south
 - east
 - west
- Find Mexico. In what direction would you travel to reach the Atlantic Ocean?
 - north
 - south
 - east
 - west
- Find the equator. In what direction would you travel to reach the United States?
 - north
 - south
 - east
 - west
- Find the United States. In what direction would you travel to reach Mexico?
 - north
 - south
 - east
 - west

Maps can show both large areas and small areas of the world. Below is a map of the city of Lincoln, Nebraska. Use the map to answer the questions below. Remember to use the compass rose.



Complete the following.

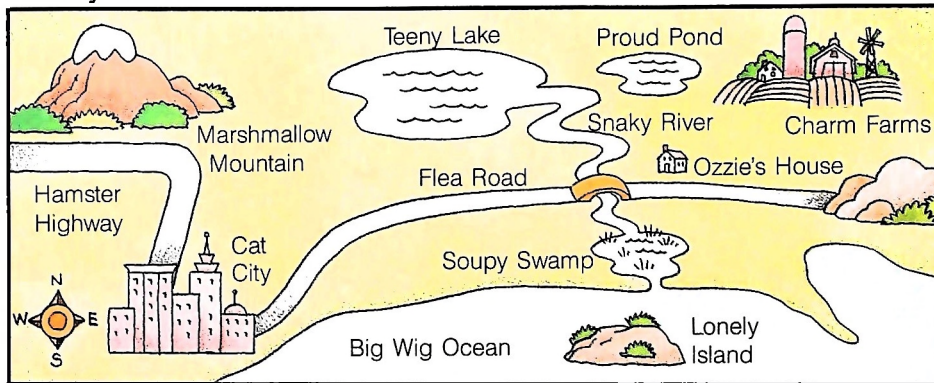
7. On which side of the city would you find Arrow Airport?
 - a. north
 - b. south
 - c. east
 - d. west
8. Find the state fair grounds. In what direction would you travel to reach the state capitol?
 - a. north
 - b. south
 - c. east
 - d. west
9. In what directions does highway 34 run?
 - a. north and south
 - b. east and west
 - c. north and west
 - d. east and south
10. On which side of the city would you find the home of William Jennings Bryan?
 - a. north
 - b. south
 - c. east
 - d. west
11. On which side of Interstate 180 would you find the state fair grounds?
 - a. north
 - b. south
 - c. east
 - d. west
12. Find the University of Nebraska. In which direction would you travel to reach Arrow Airport?
 - a. north
 - b. south
 - c. east
 - d. west
13. Find Mahoney Park. Draw a line west to highway 180. What highway did you cross?
 - a. 34
 - b. 6/77
 - c. 80
14. Find the state capitol. Draw a line north. What is the first highway you cross?
 - a. 34
 - b. 6/77
 - c. 80

Using Directions on a Map

Learn to: use directions to read a map

The map below shows where Ozzie lives. Use what you have learned about directions to answer the questions about the map.

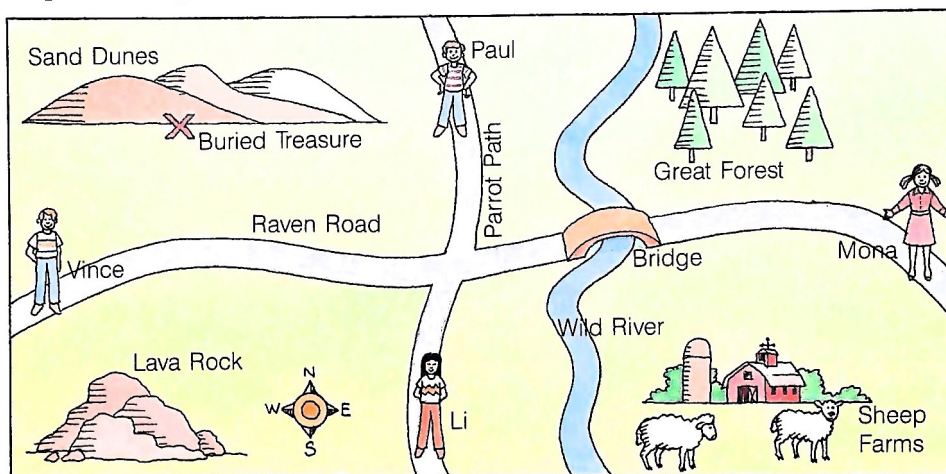
Wacky World



Circle the correct answer.

- Find Ozzie's house. On which side of Ozzie's house is Proud Pond?
 - north
 - south
 - east
 - west
- In what direction would Ozzie travel to get from his house to Teeny Lake?
 - north
 - south
 - east
 - west
- In what direction would Ozzie travel to reach Lonely Island?
 - north
 - south
 - east
 - west
- Find Marshmallow Mountain. What direction is it from Cat City?
 - north
 - south
 - east
 - west
- In what direction does Snaky River flow from Teeny Lake to Big Wig Ocean?
 - north
 - south
 - east
 - west
- From what direction does Hamster Highway enter Cat City?
 - north
 - south
 - east
 - west
- When Ozzie leaves his house to go to Cat City, in what direction does he travel on Flea Road?
 - north
 - south
 - east
 - west

Mona, Li, Vince and Paul would all like to find the buried treasure. They decide to meet Paul and look for the treasure together. Look at the map carefully and help them reach Paul and the treasure.



Circle the correct answer.

8. Find Paul. On which side of the sand dunes is he?
 - a. north
 - b. south
 - c. east
 - d. west
9. In which directions does Raven Road run?
 - a. north and south
 - b. east and west
 - c. north and west
 - d. east and south
10. On which side of the bridge is Mona?
 - a. north
 - b. south
 - c. east
 - d. west
11. On which side of lava rock is Vince?
 - a. north
 - b. south
 - c. east
 - d. west
12. Li heads north. What must she cross to reach Paul?
 - a. the bridge
 - b. the sheep farms
 - c. Raven Road
13. Mona heads west on Raven Road and stops at the bridge. What two places did she pass?
 - a. the sand dunes and the lava rock
 - b. the great forest and the sheep farms
 - c. the sand dunes and the great forest
14. What is the best way for Li to reach Paul?
 - a. go north on Parrot Path
 - b. go west on Parrot Path
 - c. go west on Raven Road
15. What is the best way for Vince to reach Paul?
 - a. go south on Parrot Path
 - b. go east on Raven Road and then north on Parrot Path
 - c. go west on Raven Road and then north on Parrot Path

Map Symbols

Learn to: find the meaning of symbols on a map

Cartographers use **symbols** to tell about things and places on earth. A symbol stands for something real. Map makers use lines, shapes or colors as map symbols. You have already learned that the color blue stands for water on some maps.

Map symbols may look like the thing they stand for. For example, a symbol for a highway is often a gray line.

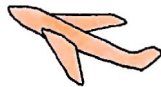
Below are some symbols often used on maps. Match the symbol to its correct meaning by writing the letter in the blank.

1. _____



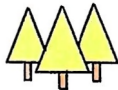
a. railroad

2. _____



b. school

3. _____



c. trees

4. _____



d. church

5. _____



e. river

6. _____



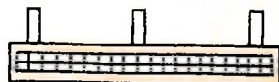
f. house

7. _____



g. factory

8. _____



h. airport

Map symbols can be used to show **natural features** on earth, such as mountains, rivers and forests. Symbols can also be used to show **human-made features**. These features include things that people have built, such as cities, railroads and bridges.

Look at the photographs below. The mountain is a natural feature. The map symbol often used for mountain is next to it. The bridge is a human-made feature. The symbol often used for bridge is next to it.

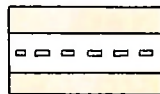


There are more common map symbols shown below. Match the symbol to its meaning by writing the correct letter in the blank. Then tell whether the feature is natural or human-made, by circling the correct word.

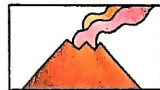
- a. lake
- b. island
- c. forest
- d. hills
- e. volcano
- f. city
- g. highway
- h. dam



9. _____ natural human-made



10. _____ natural human-made



11. _____ natural human-made



12. _____ natural human-made



13. _____ natural human-made



14. _____ natural human-made



15. _____ natural human-made



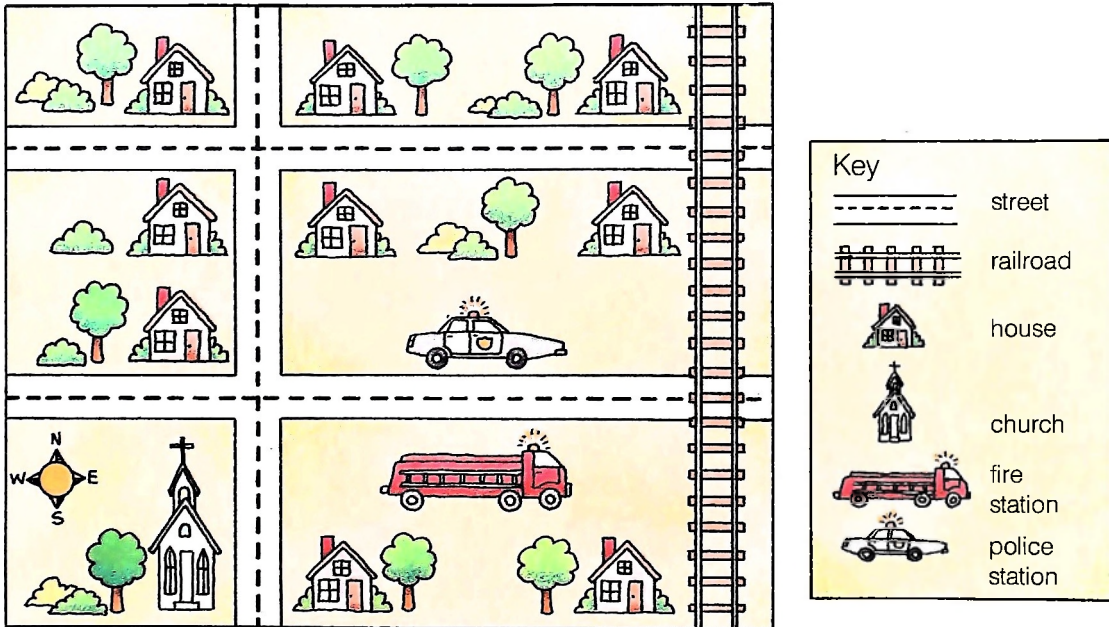
16. _____ natural human-made

Map Keys

Learn to: read a map key

A **map key** tells the meaning of each symbol used on a map. It is the key that unlocks the meaning of a map.

Look carefully at the map and map key below. Use them to answer the questions.

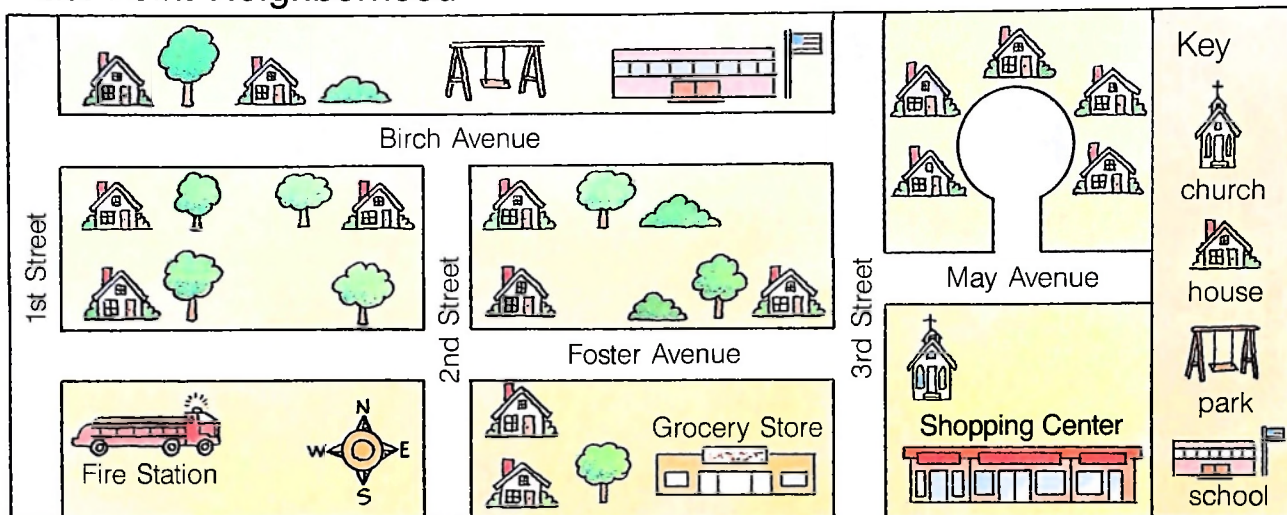


Complete the following.

1. Circle the symbol for street on the key.
2. Find the railroad on the map. Draw an X on it.
3. Find the church on the map. Draw a box around it.
4. Draw a line from the church to the police station.
5. How many houses are shown on this map? _____
6. How many fire stations are shown on this map? _____
7. Draw an H on the two houses located on the south side of town.
8. What does the key on this map tell you?
 - a. how many people live in the town
 - b. what time the trains pass through the town
 - c. what the map symbols mean

Use the map and key to answer the questions below.

East Point Neighborhood



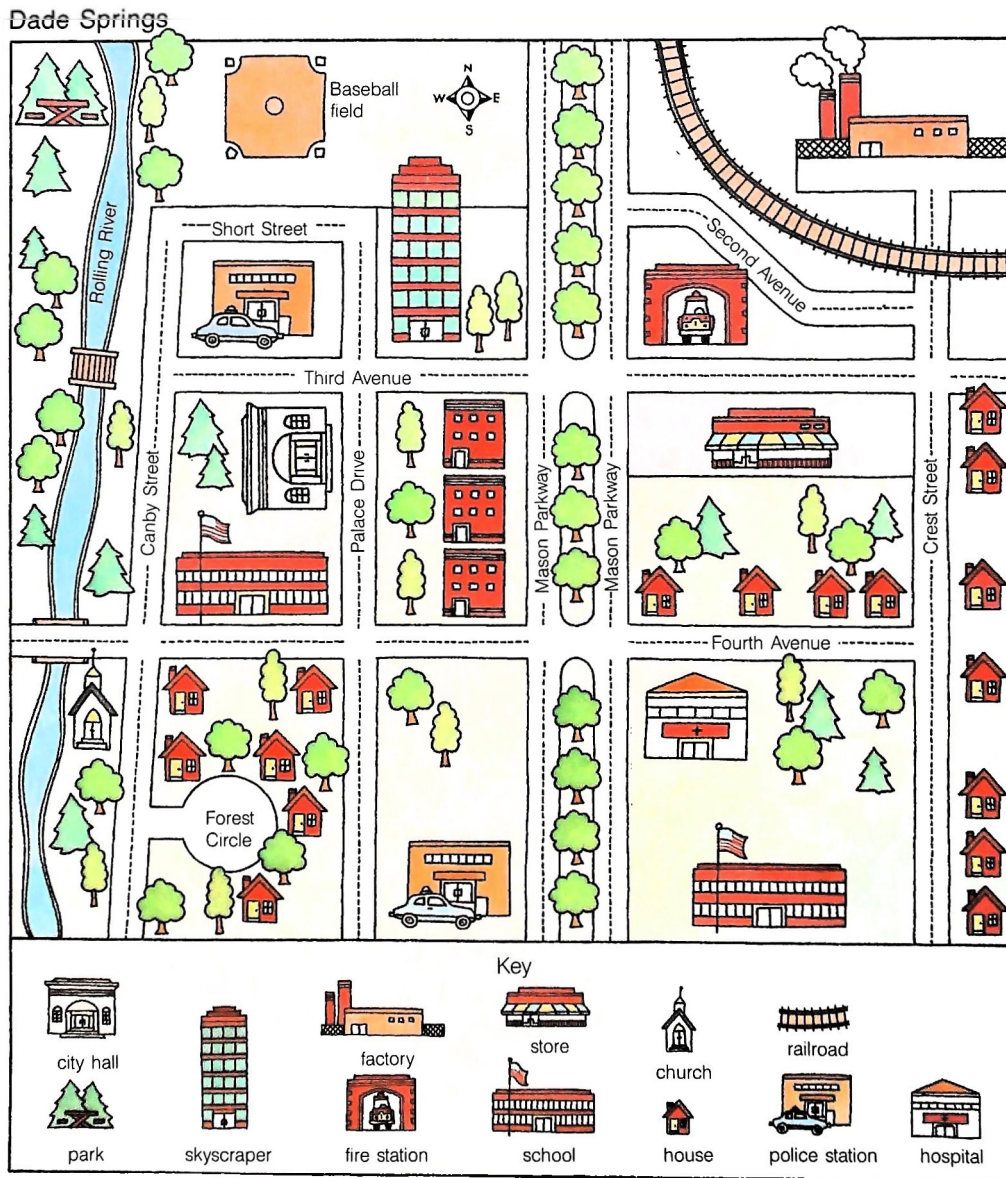
9. Find the fire station. Dina lives directly north of it. Put an X on Dina's house.
10. Juan lives directly west of the park. Put a box around Juan's house.
11. What two streets meet near the fire station?
 - a. May Avenue and 3rd Street
 - b. Foster Avenue and 3rd Street
 - c. Foster Avenue and 1st Street
12. Juan leaves the park and travels east on Birch Avenue. If he turns south at the first corner he comes to, what street will he be on?
 - a. 2nd Avenue
 - b. 3rd Street
 - c. May Avenue
13. How many houses are there on Foster Avenue?
 - a. five
 - b. three
 - c. four
14. Find the church. What lies directly south of it?
 - a. the school
 - b. the fire station
 - c. the shopping center
15. Ralph is at school and wants to go to the shopping center. On the map, draw a black line to show the shortest route he could take to reach the shopping center.
16. Dina is at the park. She has to go to the grocery store, and then to the school. On the map, draw a red line to show the shortest route she should take to make these stops.

Lesson 11

Using a Map Key

Learn to: read a map key to find places on a map

You can read a map as easily as you read a book if you remember to look at the key. Use the map and key to complete the activities below, and on the next page.



Complete the following by drawing on the map.

1. Find the city hall on the map. Draw a box around it.
2. Draw a line from the city hall to the skyscraper.
3. Find the factory. Draw a circle around it.
4. Draw a line along the shortest route from the factory to the fire station.
5. Draw an X on the spot where the railroad tracks cross Crest Street.
6. Find the baseball field. Draw a triangle on it.

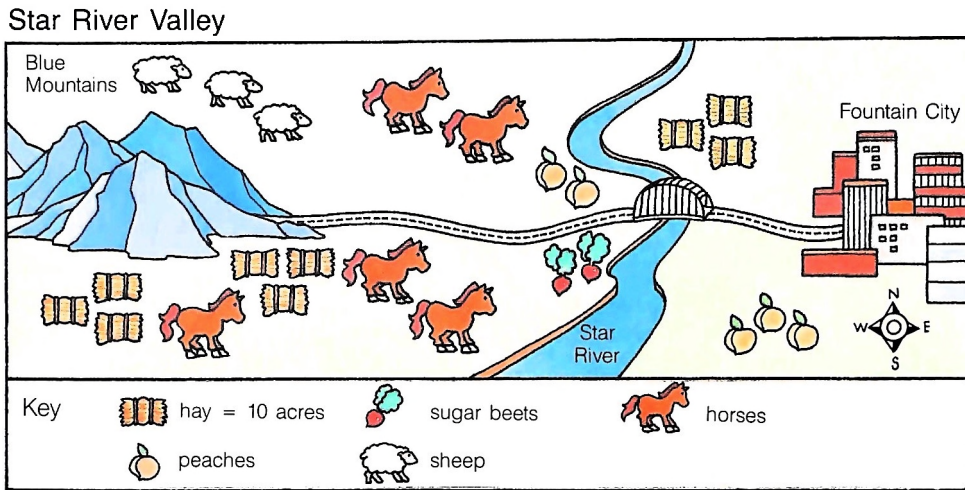
Circle the correct answer.

7. What street ends at the factory?
 - a. Fourth Avenue
 - b. Crest Street
 - c. Forest Circle
8. How many houses are there on Fourth Avenue?
 - a. 7
 - b. 3
 - c. 6
9. Which one is closest to city hall?
 - a. baseball field
 - b. hospital
 - c. factory
10. How many police stations are shown on this map?
 - a. 5
 - b. 2
 - c. 3
11. In what direction would you go to reach Rolling River from Forest Circle?
 - a. north
 - b. south
 - c. east
 - d. west
12. Rosa lives on Forest Circle. In what direction would she walk to reach the closest school?
 - a. north
 - b. south
 - c. east
 - d. west
13. Begin at the hospital. Go north on Mason Parkway until you reach Third Avenue. Go west on Third Avenue until you reach Palace Drive. Go north on Palace Drive until you reach Short Street. Where are you?
 - a. at a factory
 - b. at a store
 - c. at a baseball field
14. Bob lives on Crest Street, across the street from a school. Give him directions for the shortest route to the church. Be sure to include all necessary steps. The first one is done for you.
 1. First, go north on Crest Street.
 2. _____
 3. _____
 - _____

Reading and Comparing Maps

Learn to: find details and facts on a map
compare information on a map

The map on this page shows the Star River Valley. The symbols in the key stand for the food grown and the animals raised there. Notice that the haystack symbol on this map stands for more than one acre of hay.

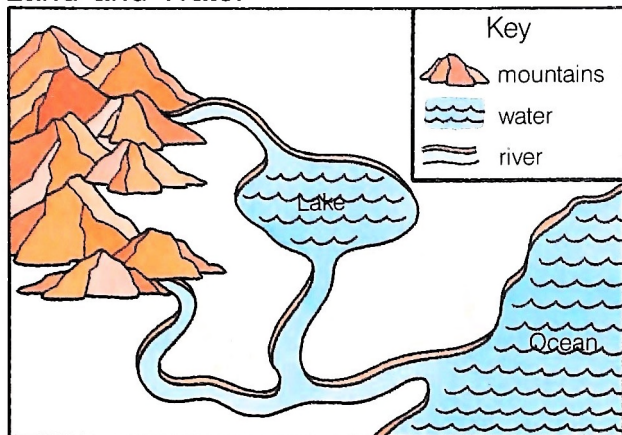


Complete the following.

- Which animals are raised closest to Fountain City?
 - horses
 - sheep
- What two products are grown south of Blue Mountains?
 - hay and peaches
 - hay and sugar beets
 - sugar beets and peaches
- How many acres of hay are grown in the valley?
 - 3
 - 60
 - 90
- Where are horses raised?
 - west of Star River
 - east of Star River
 - in the Blue Mountains
- What products are grown both east and west of Star River?
 - hay and sugar beets
 - hay and peaches
 - peaches and sugar beets
- In which direction might someone in Fountain City travel to reach a farm growing sugar beets?
 - north
 - south
 - east
 - west

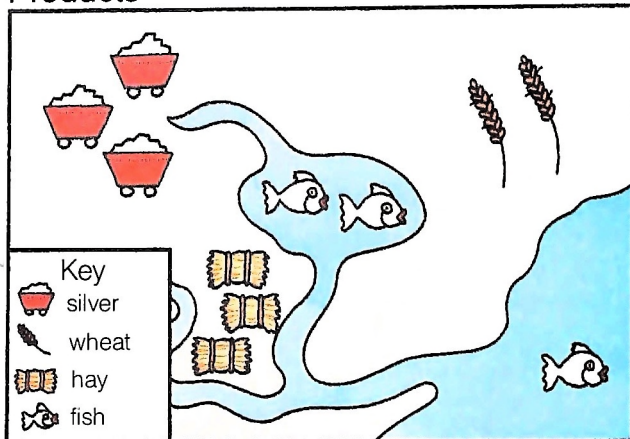
Below are two maps of Silverton. Map A shows the land and water areas. Map B shows the goods produced in the community. When you compare the two maps you learn more about Silverton. For example, it is easy to see why fish are a product of this community, since it has lakes and rivers. Study the maps carefully and answer the questions below.

Land and Water



Map A

Products



Map B

Circle the correct answer.

7. How many rivers are shown on Map A?
 - a. 1
 - b. 2
 - c. 3
8. Where is silver mined?
 - a. in the west
 - b. in the east
 - c. in the south
9. Where is wheat grown?
 - a. north of the lake
 - b. south of the lake
 - c. east of the lake
 - d. west of the lake
10. What resource is found in the mountains?
 - a. fish
 - b. hay
 - c. silver
 - d. wheat
11. What product is found between the rivers?
 - a. fish
 - b. hay
 - c. silver
 - d. wheat
12. What is Map B useful for?
 - a. to find where some products are located
 - b. to find how much silver is mined each year
 - c. to find how much rain falls in Silverton

What is a map grid?

Learn to: use a map grid to find and name places

A **grid** can help you locate places on a map. A grid is made up of straight lines that cross to form boxes. These boxes divide the map into smaller parts. Numbers or letters along the sides and top and bottom of the grid help you find places on the map.



Study the sample grid.

To find what is located at B-2, start by putting your finger at the top of column B.

Then run your finger down the column until you find the place where column B crosses row 2.

You should find a star there.

Follow the same steps to find the shape at C-3. Did you find a moon there?

| | A | B | C | D |
|---|---|--|--|---|
| 1 | | | | |
| 2 | |  | | |
| 3 | | |  | |

Now find more locations on the sample grid.

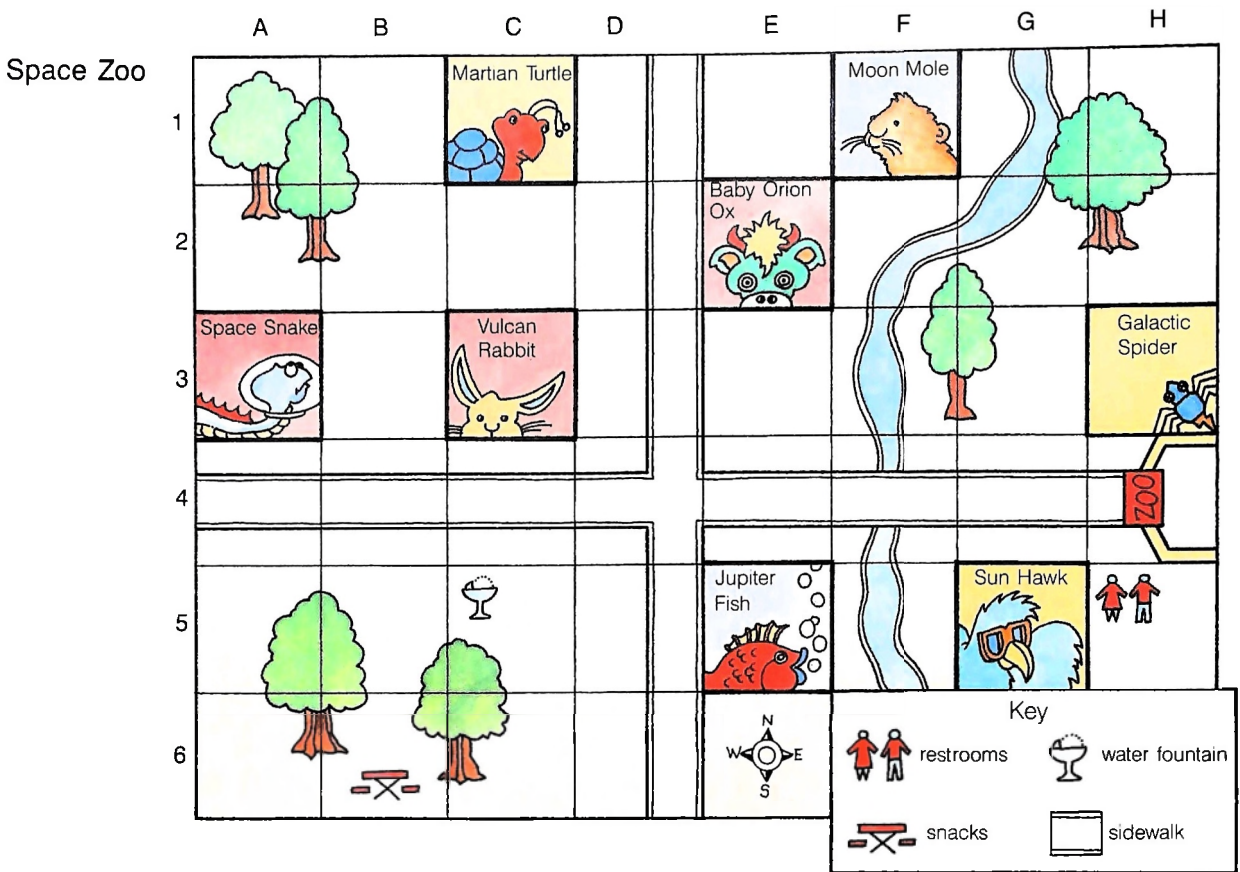
Put an R at the location D-1.

Put a Z at the location A-3.

Put an S at the location C-2.

Look carefully at the map of the Space Zoo on the following page. Notice the grid lines. Use the map to answer the questions.

Space Zoo



Complete the following.

- Find location C-1 on the map. What animal do you find there?

- Find E-2. What animal is located there? _____
- What animal is located at C-3? _____
- Find the water fountain. Write the letter and number of its location. _____
- You do not want to miss seeing the Jupiter Fish. Where is it located?

- What do you find at B-6? _____
- Find Galactic Spider. What is its location? _____
- What is the location of the Sun Hawk? _____
- What do you find at the location A-3? _____
- Draw a line to show the route you took if you started at the Martian Turtle, walked to the Space Snake, walked to the drinking fountain, and ended up at the Sun Hawk.

Lesson 14

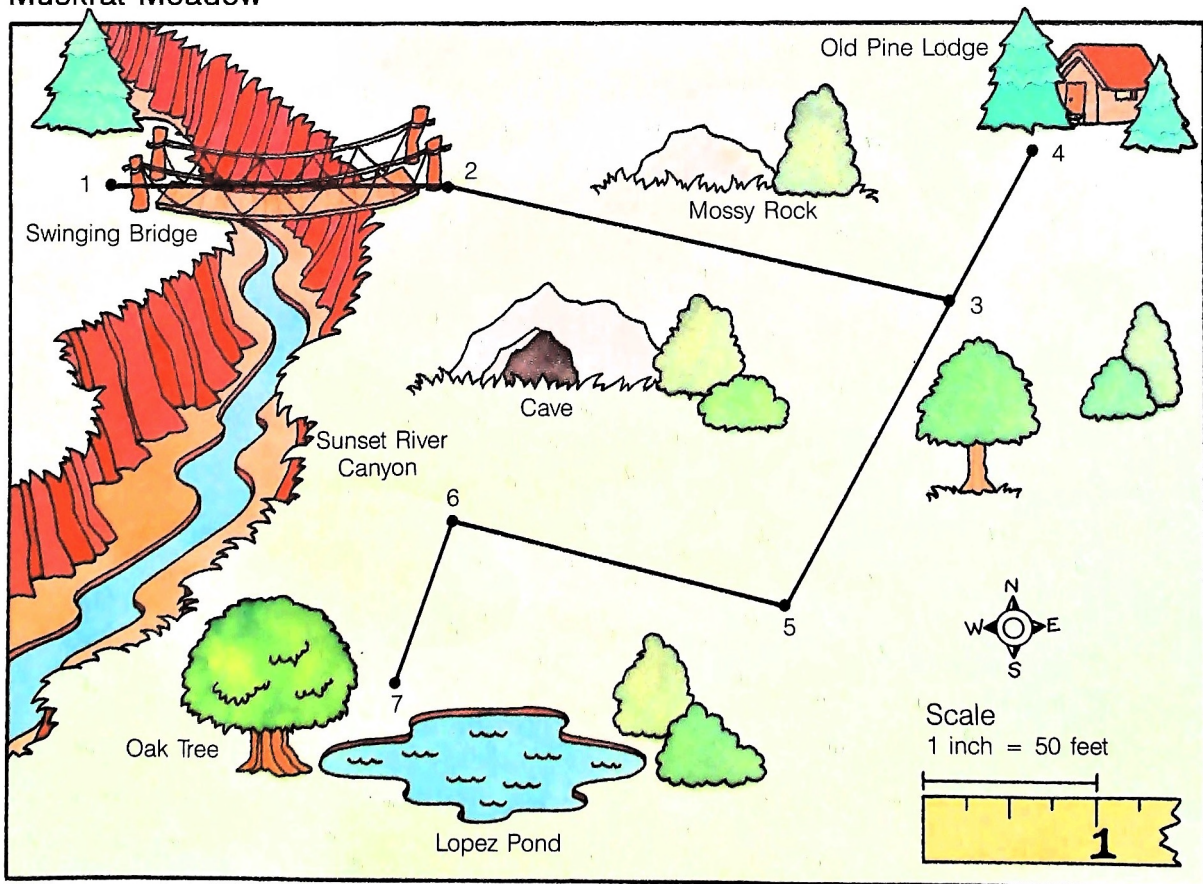
What is map scale?

Learn to: find the meaning of scale
measure distance on a map

When you want to draw an exact picture of an object, you often draw it much smaller than the object really is. You make a **scale drawing**. A scale drawing is a very exact kind of drawing. Look at the oak tree in Muskrat Meadow, below. It is 1 inch high. The scale tells us that 1 inch stands for 50 feet. Therefore, the real oak tree is 50 feet tall.

The **scale** tells you what short distance on a map stands for a longer, real distance. The scale on the map tells you that 1 inch stands for 50 feet. To use the scale on this map, use a ruler to measure how far apart two points are. If two points are 1 inch apart on the map, they are 50 feet apart in real distance.

Muskrat Meadow



Look carefully at Muskrat Meadow. Practice what you have learned about scale. If you do not have a ruler, copy the scale markings onto the edge of a sheet of paper. Use the paper as a ruler to measure.

Complete the following.

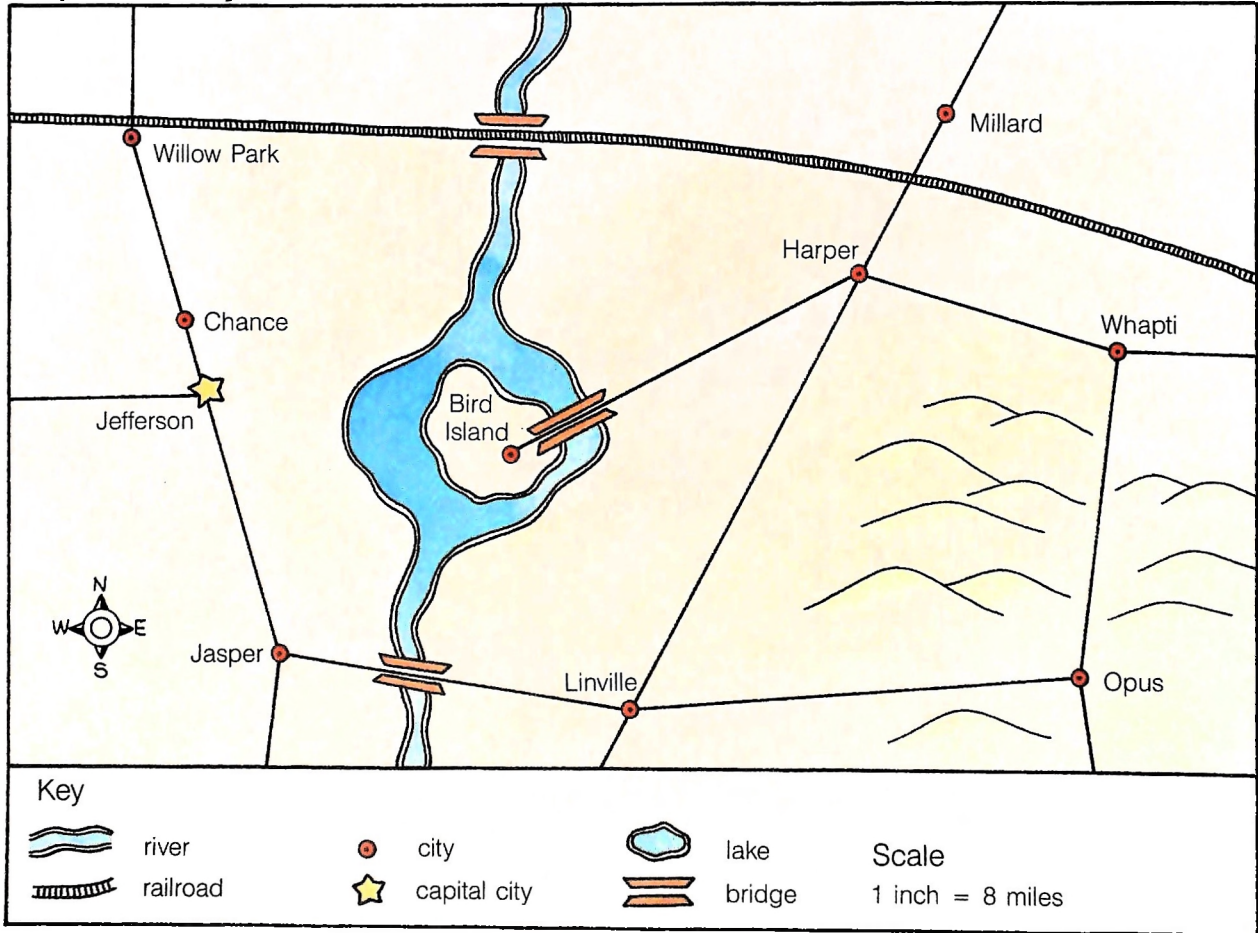
1. Measure the distance between point 5 and point 6 on the map.
How many inches apart are these two points? _____
How many feet apart are these two points in real distance? _____
2. Measure the distance between point 3 and point 4.
How far apart are they on the map? _____
How far apart are they in real distance? _____
3. How far apart are point 2 and point 3 in real distance? _____
4. How far apart are point 1 and point 2 in real distance? _____
5. Find Old Pine Lodge. If you follow the path, how far would you walk to reach point 5? _____
6. How far would you walk, in real distance, if you went from point 3, to point 5, to point 6 and then to point 7? _____
7. If you were at Mossy Rock, in what direction would you walk to reach Swinging Bridge? _____
8. If you were at Lopez Pond, in what direction would you walk to reach the cave? _____
9. On the map, Lopez Pond is two inches wide at its widest point. How wide is Lopez Pond in real distance? _____
10. If you drew a line from point 6 to point 4 on the map, it would be four inches long. How long would the line be in real distance? _____
11. What direction is the Oak Tree from the Sunset River Canyon? _____
12. If you follow the path from point 2 to point 3, in what direction did you walk? _____ Continue on to point 5. In what direction did you walk? _____

Finding Distance

Learn to: measure distances on a map
compare distances on a map

Look carefully at the map of Aspen County below. Notice that the scale is marked to help you find distance. Use a ruler or a marked sheet of paper to measure distances on the map. Remember that each inch on the map stands for a longer, real distance.

Aspen County



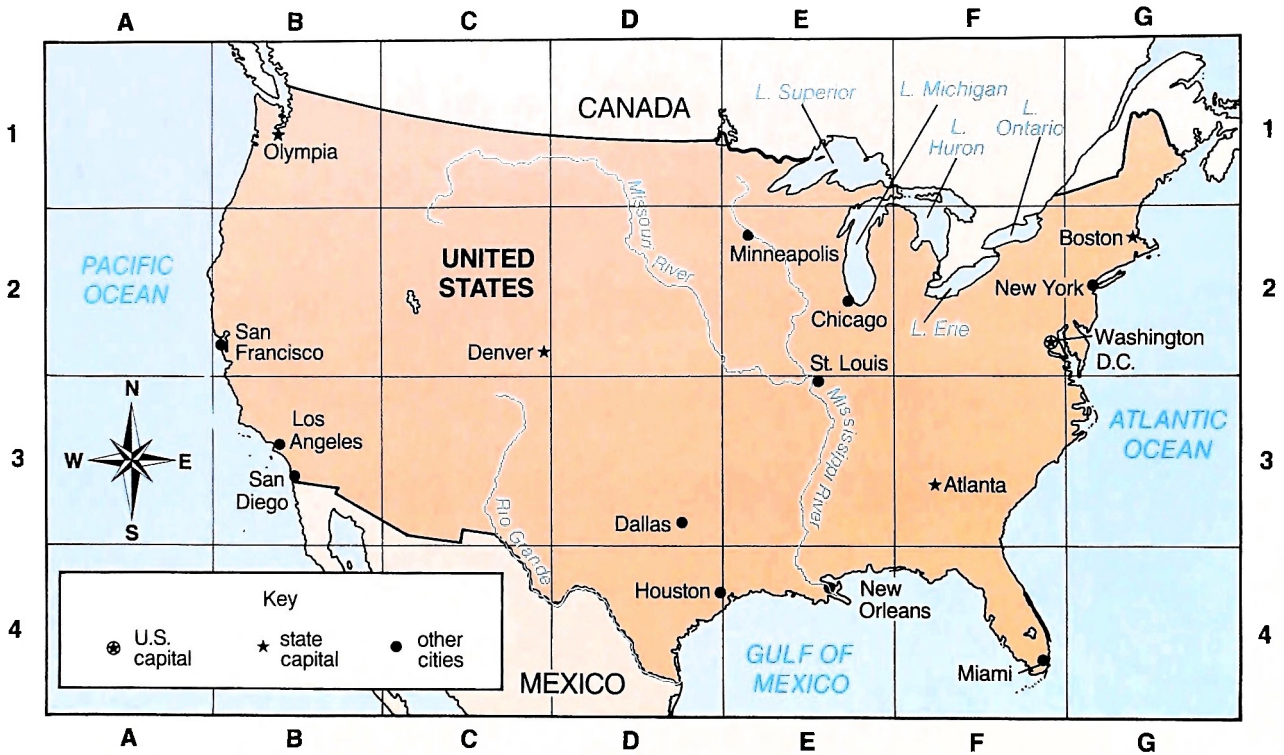
Circle the correct answer.

1. Which of these is a capital city?
 - a. Whapti
 - b. Jefferson
 - c. Opus
2. How far is it from Harper to Millard?
 - a. 8 miles
 - b. 5 miles
 - c. 2 miles
3. How far is it from Opus to Whapti?
 - a. 16 miles
 - b. 8 miles
 - c. 30 miles
4. What city does the railroad pass through?
 - a. Willow Park
 - b. Opus
 - c. Jefferson
 - d. Linville
5. What city do you pass through if you travel from Jasper to Opus?
 - a. Willow Park
 - b. Millard
 - c. Whapti
 - d. Linville
6. About how far is it from Jefferson to Jasper?
 - a. 25 miles
 - b. 36 miles
 - c. 12 miles
7. How far do you travel if you follow the highway from Whapti to Millard?
 - a. 20 miles
 - b. 16 miles
 - c. 12 miles
8. How many bridges are shown on this map?
 - a. 1
 - b. 2
 - c. 3
 - d. 4
9. About how far is it from Millard to the railroad tracks?
 - a. 15 miles
 - b. 12 miles
 - c. 3 miles
10. Which one of these is the shortest distance?
 - a. Harper to Linville
 - b. Chance to Jasper
 - c. Opus to Jasper
11. Which one of these is the longest distance?
 - a. Harper to Millard
 - b. Chance to Willow Park
 - c. Bird Island to Harper
12. What is the best route to take from Bird Island to the state capital?
 - a. through Harper, Linville and Jasper
 - b. through Harper, Millard and Willow Park
 - c. through Chance
 - d. through Jasper

Places in the United States

Learn to: use a grid to find places in the United States
read a map key

Look carefully at this map of the United States. You will need to use the grid and key to answer the questions.



Complete the following.

- Circle the symbol for a national capital on the key.
- What color is used to show bodies of water on this map?
- Draw a line along the entire Mississippi River on this map.
- What two oceans are shown on this map?

Use the map of the United States to answer the following questions.

5. Find New Orleans. What is its grid location?
a. E-4 b. B-2 c. G-2
6. What is the location of the national capital?
a. G-1 b. G-2 c. F-2
7. Which one of these cities is a state capital?
a. Atlanta
b. Dallas
c. Minneapolis
8. Find D-3. What city is located there?
a. Denver
b. Dallas
c. Atlanta
9. What is located at F-4?
a. Denver
b. Lake Erie
c. Miami
10. What is located at E-1?
a. Lake Superior
b. Lake Erie
c. Gulf of Mexico
11. What two cities are found at B-3?
a. Boston and Washington, D.C.
b. Los Angeles and San Francisco
c. Los Angeles and San Diego
12. What is located at F-2?
a. the Mississippi River
b. Lake Erie, Lake Ontario and part of Lake Huron
c. Lake Michigan
13. What is the location of the U.S. capital?
a. F-2
b. F-3
c. G-2
14. If you travel from Dallas to San Francisco, at what location does your trip end?
a. A-2
b. B-2
c. B-3
15. What river meets the Gulf of Mexico at E-4?
a. Missouri River
b. Rio Grande
c. Mississippi River

Statue of Liberty, New York Harbor



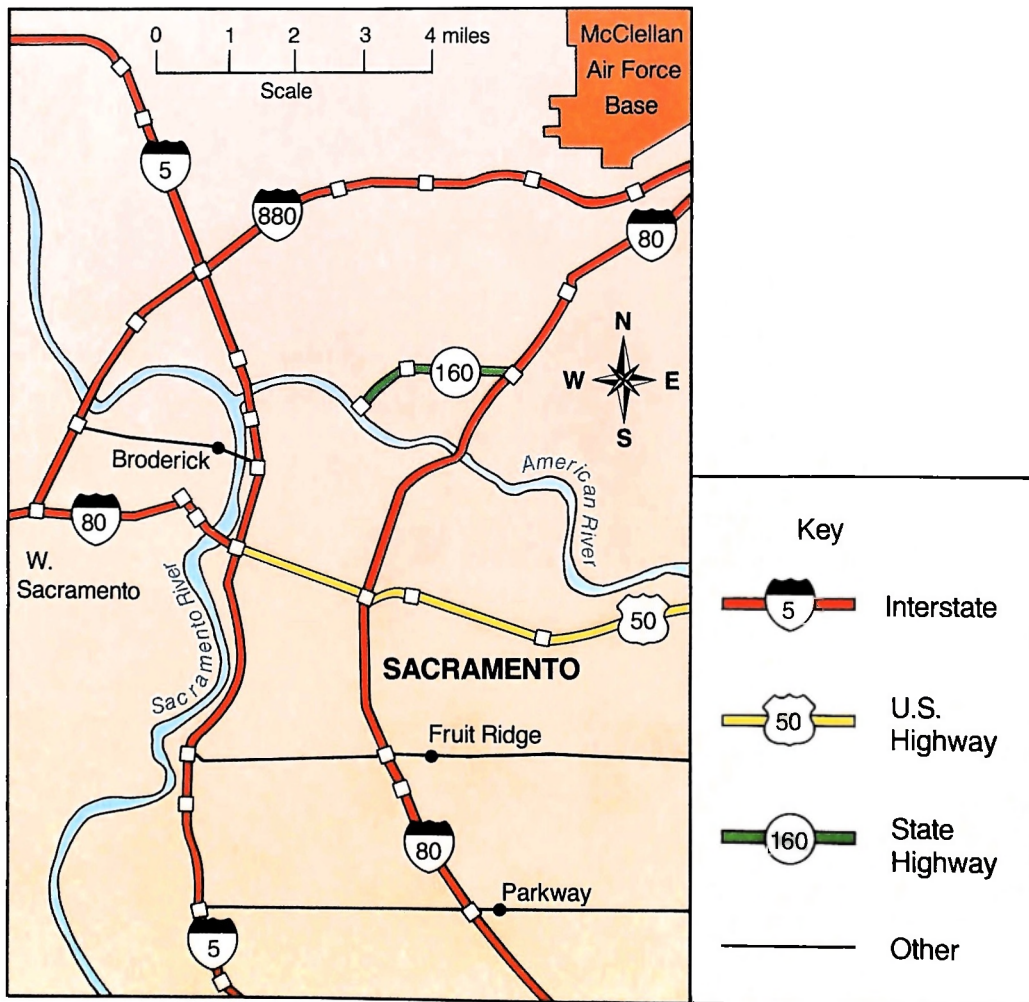
Lesson 17

What is a highway map?

Learn to: use a highway map

Highway maps show roads, highways and towns in an area. Keys are very important to highway maps. Look at the key below. Each kind of road has a symbol and a number. A **state highway** is a road within the borders of a state. A **U.S. highway** crosses more than one state. An **interstate highway** is a special, divided U.S. highway.

Look carefully at this highway map of the Sacramento area, in California.



Use the highway map of the Sacramento area to answer the following questions.

Circle the correct answer.

1. Which one of these is an interstate highway?
 - a. 5
 - b. 160
 - c. 50
2. Which one of these is a state highway?
 - a. 5
 - b. 160
 - c. 50
3. In which directions does highway 5 run?
 - a. north and south
 - b. east and west
 - c. south and west
4. What direction is McClellan Air Force Base from highway 880?
 - a. north
 - b. south
 - c. east
 - d. west
5. What direction is the Sacramento River from highway 5?
 - a. north
 - b. south
 - c. east
 - d. west
6. What kind of highway is highway 50?
 - a. interstate highway
 - b. U.S. highway
 - c. state highway
7. Which two highways cross the American River?
 - a. 5 and 80
 - b. 50 and 880
 - c. 50 and 160
8. From which direction does highway 50 enter the Sacramento area?
 - a. from the north
 - b. from the south
 - c. from the east
 - d. from the west
9. What highways runs closest to McClellan Air Force Base?
 - a. 160
 - b. 50
 - c. 880
10. Which one is the shorter distance?
 - a. Broderick to highway 880
 - b. Broderick to highway 5
11. What does the map show about the location of Fruit Ridge?
 - a. Interstate 80 runs through it.
 - b. It is less than a mile from interstate 80.
 - c. It is about 4 miles from interstate 80.
12. On the map, draw the shortest highway route you could take from Parkway to Broderick.
13. On the map, circle the closest place for people from Fruit Ridge to enter interstate 80.
14. On the map, draw an X on the spot where highway 880 crosses the Sacramento River.

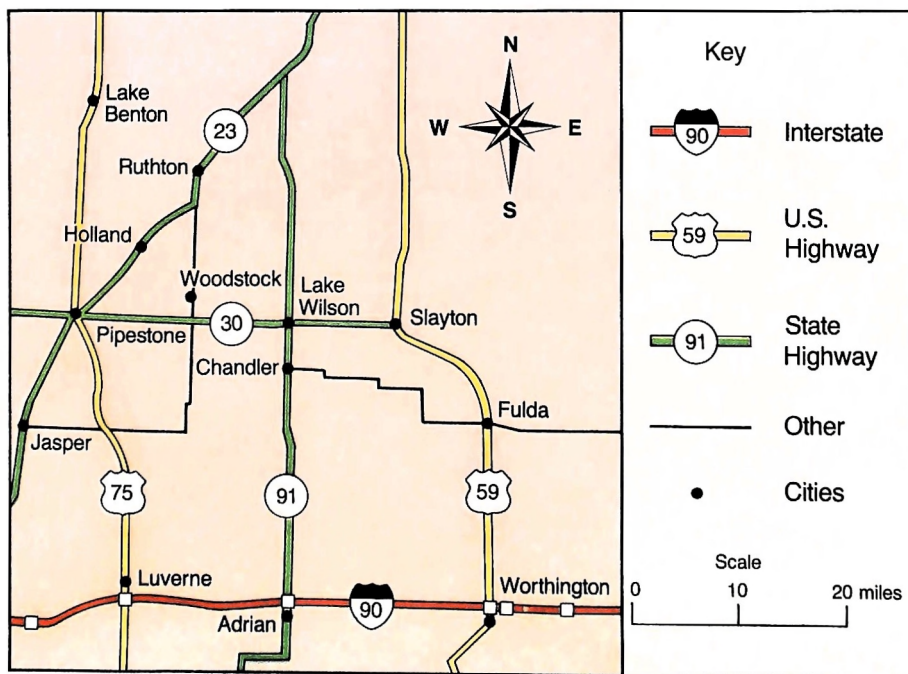
Lesson 18

Using a Highway Map

Learn to: locate places on a highway map
find distances on a highway map

Highway maps can help you find the best routes to travel. They also tell you the distance from one place to another. A highway map key has symbols for roads, cities and other important things to see.

The map below shows major highways that go through part of the state of Minnesota. Look at the map and key carefully.



Use the map of the Minnesota area to answer the questions.

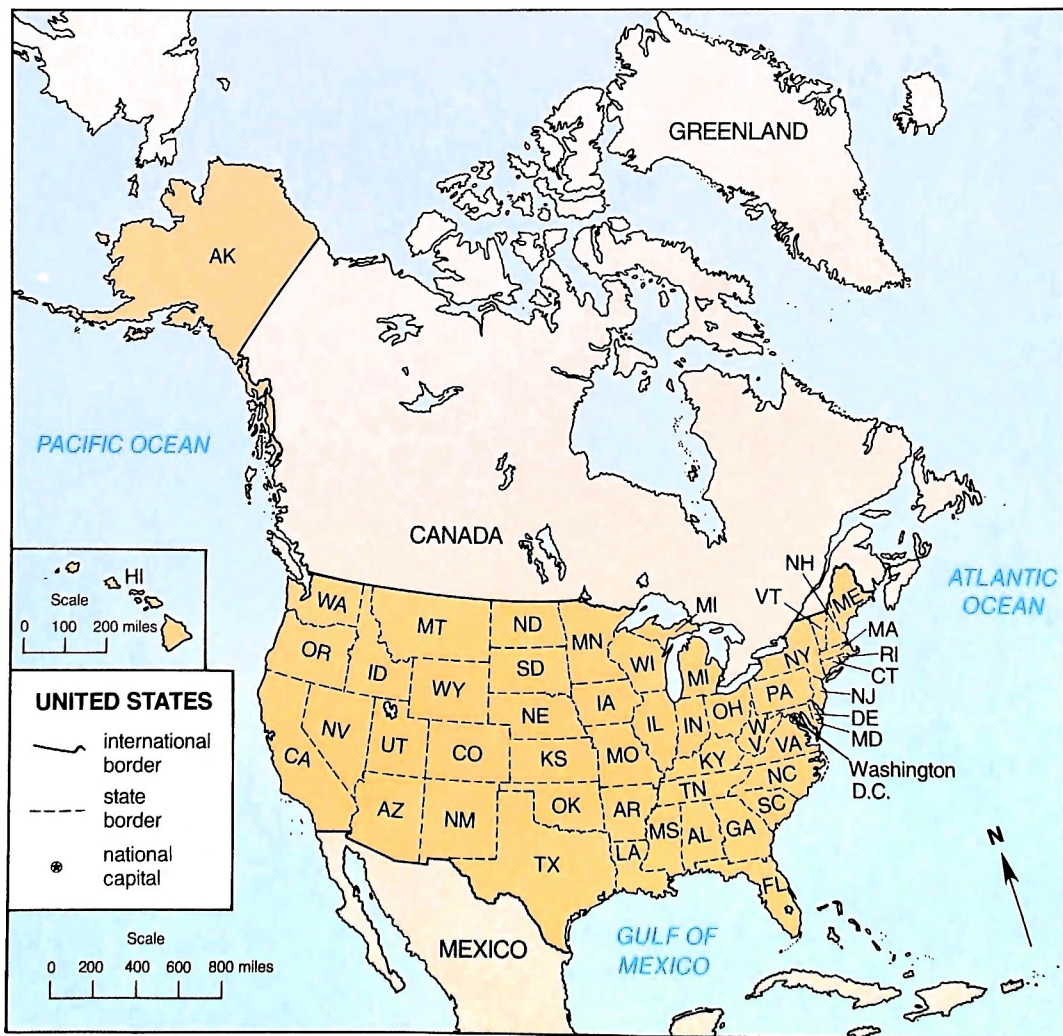
1. Find Woodstock on the map. What is the first city east of Woodstock, on highway 30?
 - a. Lake Wilson
 - b. Pipestone
 - c. Ruthton
2. Which highway runs north and south through Pipestone?
 - a. 91
 - b. 75
 - c. 59
3. Which highway runs through Fulda?
 - a. 59
 - b. 30
 - c. 90
4. Find Lake Benton. What is the distance from Lake Benton to Pipestone?
 - a. 50 miles
 - b. 18 miles
 - c. 14 miles
5. Which one of these is a U.S. highway?
 - a. 90
 - b. 30
 - c. 59
6. What is the distance from Lake Wilson to Slayton?
 - a. 9 miles
 - b. 14 miles
 - c. 30 miles
7. If you traveled east from Luverne, on interstate 90, which town would you reach first?
 - a. Worthington
 - b. Jasper
 - c. Adrian
8. What is the distance from Chandler to Adrian?
 - a. about 22 miles
 - b. about 2 miles
 - c. about 10 miles
9. What is the most direct route from Adrian to Slayton?
 - a. north on highway 91, east on highway 30
 - b. north on highway 91, west on highway 30
 - c. west on interstate 90, north on highway 75
10. What is the most direct route from Pipestone to Fulda?
 - a. south on highway 75, east on interstate 90
 - b. east on highway 30, south on highway 59
 - c. east on highway 30
11. Draw the best highway route from Worthington to Woodstock on the map.
12. Interstate 90 is closed because of construction. You want to travel from Jasper to Adrian. On the map, draw the best route you could take to reach Adrian, without traveling highway 90.

Borders and Boundaries

Learn to: identify borders between states
identify borders between countries

Cartographers draw lines on a map to show borders. A **border** marks the place where one state or country ends and another begins. On this map, the line drawn between the United States and Canada marks the border between them. A border between two countries is called an **international border**.

States are smaller areas within a country. The place where one state ends and another begins is marked with a **state border**. You can see that the line drawn between states is different than the line drawn between countries.





Cars waiting to cross the international border between Mexico and the United States.

Use the map of the United States to answer the following questions.

1. Draw the line that marks a state border on this map.

2. On the key, circle the line that marks the border between two countries.
3. Find Mexico on the map. What kind of border lies between Mexico and the United States?
 - a. state border
 - b. international border
4. How many states have borders along the Gulf of Mexico?
 - a. 3
 - b. 4
 - c. 5
5. In which direction would you travel to go from Canada to the Pacific Ocean?
 - a. north
 - b. south
 - c. east
 - d. west
6. Find the Atlantic Ocean. How many U.S. states have borders along this ocean?
 - a. 10
 - b. 12
 - c. 14
7. How many U.S. state borders are found along the U.S. border with Mexico?
 - a. 6
 - b. 4
 - c. 3
8. How many states share a border with California?
 - a. 3
 - b. 4
 - c. 5
9. Find Greenland on the map. If you travel south from Greenland, what country would you reach first?

10. Find Missouri (MO). On the map, draw a line north from it to the first international border you find.
11. Find the state in which you live. Put an X on it.
12. How many other states share a border with your state? _____

Land Features

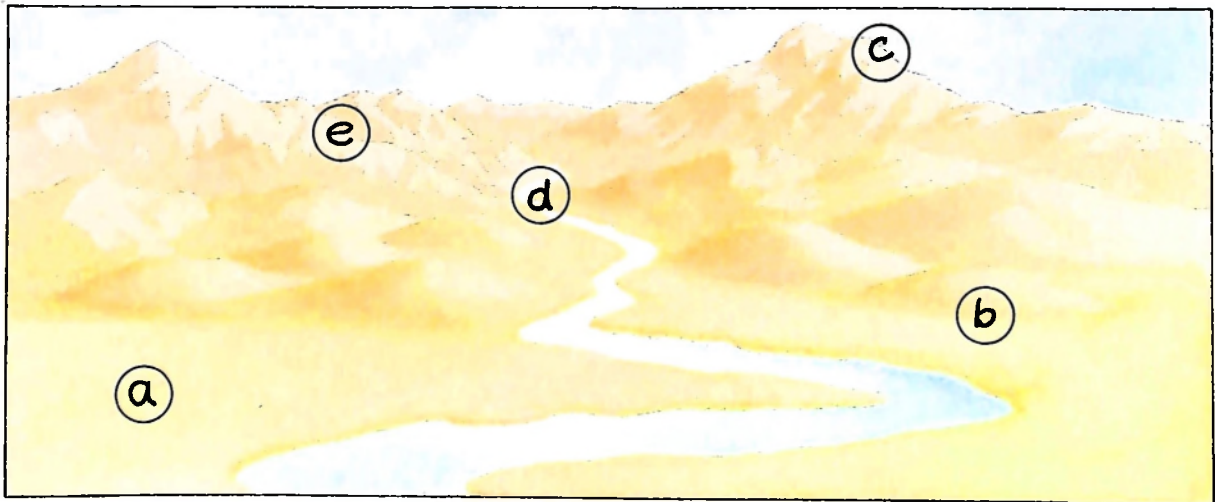
Learn to: find land features on a map

Some maps show us land features. They show us very high land, such as a **mountain**. The highest point of a mountain is a **peak**. Land that is not as high as a mountain forms **hills**.

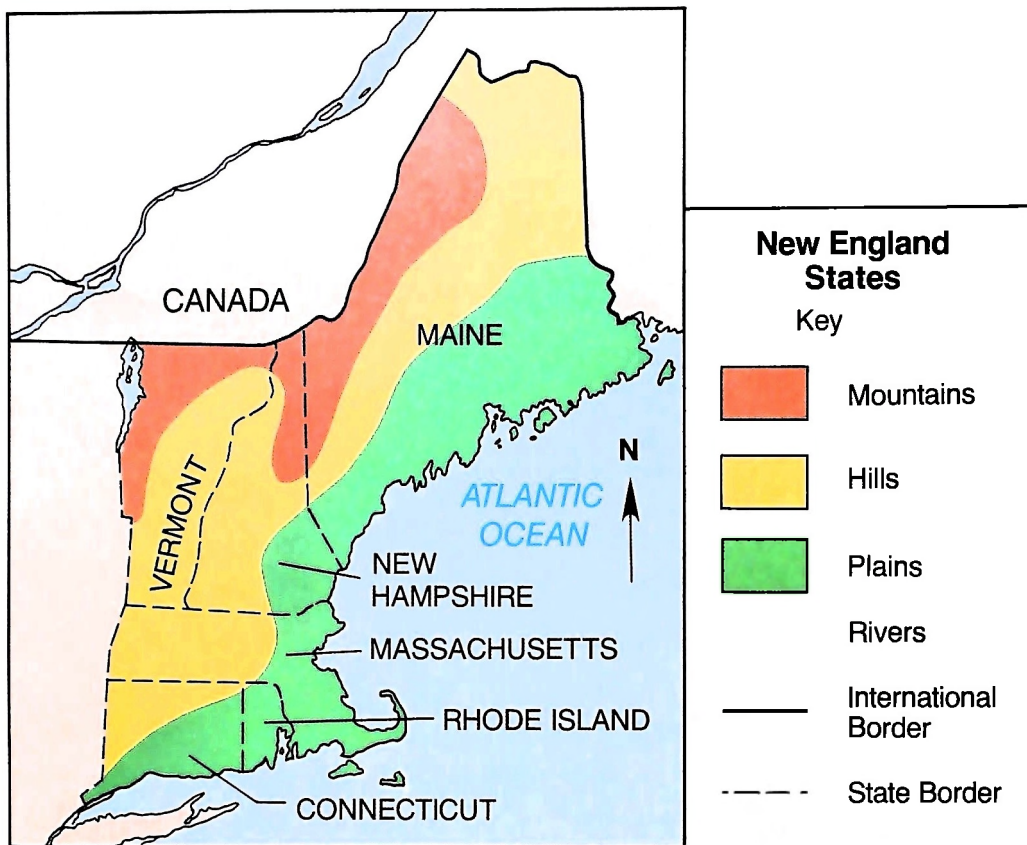
Maps also show low lands. The low places that dip between mountains are **valleys**. Low flat lands are **plains**.

The drawing below shows these land features. Write the label for each feature in the blank with the matching letter.

- | | |
|----------|-----------|
| a. _____ | mountains |
| b. _____ | peak |
| c. _____ | hills |
| d. _____ | valley |
| e. _____ | plains |



This is a map of New England, a part of the United States. Color is used on this map to show different land features. Look at the map and key carefully.



Circle the correct answer.

1. Which land feature is shown by the color yellow?
 - a. mountains
 - b. hills
 - c. plains
2. Which land feature almost completely covers Rhode Island?
 - a. mountains
 - b. hills
 - c. plains
3. Which one of these states has more mountains than Massachusetts?
 - a. Connecticut
 - b. Rhode Island
 - c. Vermont
4. The ocean is blue on this map. Which land feature covers the ocean coastline of these states?
 - a. mountains
 - b. hills
 - c. plains
5. About half of Connecticut is covered with plains. What covers the rest of the state?
 - a. mountains
 - b. hills
 - c. plains
6. What state, other than New Hampshire, has three different land features?
 - a. Maine
 - b. Massachusetts
 - c. Vermont

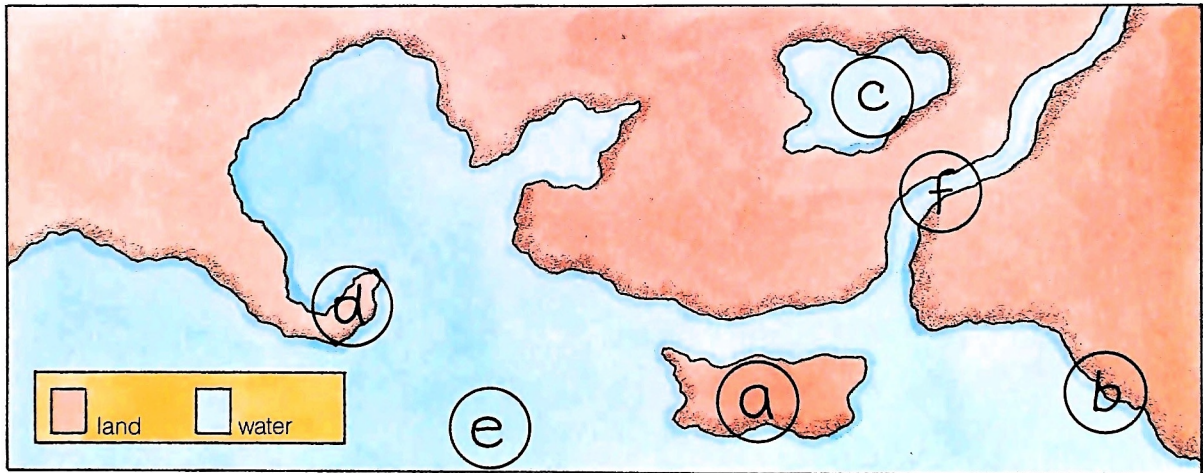
Land and Water

Learn to: find land and water features on a map

Some maps show water features. You have already learned that the largest bodies of water on earth are **oceans**. Maps also show **rivers** and **lakes**.

The place where land and water meet is called a **coastline**. A large area of ocean that lies within a curved coastline is a **gulf**. Land that is surrounded on three sides by water is called a **peninsula**. If the land is completely surrounded by water, it is called an **island**.

The diagram below shows some of these special land and water features. Write the label for each feature in the blank with the matching letter.



lake

a. _____

river

b. _____

island

c. _____

coastline

d. _____

ocean

e. _____

peninsula

f. _____

Look at this map of Florida. It shows the land and water features of this state.

FLORIDA LAND AND WATER



Circle the correct answer.

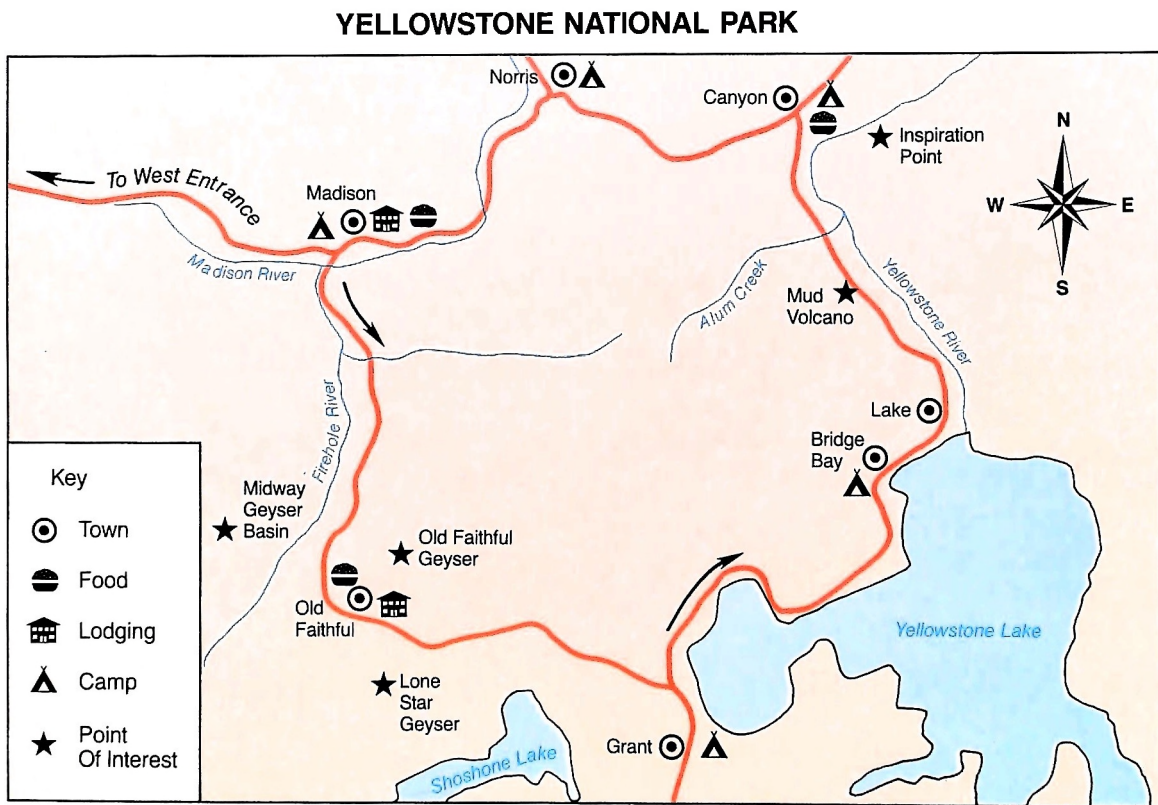
- Which body of water meets the east coast of Florida?
 - Atlantic Ocean
 - Gulf of Mexico
 - Lake Okeechobee
- Find the Florida Keys. What land feature are they?
 - islands
 - peninsulas
 - continents
- Which body of water lies west of Florida?
 - Atlantic Ocean
 - Gulf of Mexico
 - Lake Okeechobee
- What can you see about Miami from this map?
 - It is located far from the ocean.
 - It is located on an island.
 - It is located very close to the ocean.
- Where do you find a peninsula along west coast of Florida?
 - near Tampa
 - near Orlando
 - near Tallahassee
- What can you see about Florida on this map?
 - It is completely surrounded by water.
 - It has more than one river running through it.
 - It has no lakes.

Following a Route

Learn to: follow directions on a map

If you don't use a map carefully, you can get lost. Sometimes you are given a set of directions to follow on a map. Sometimes, you follow a trail that is marked for you on a map.

This is a map of Yellowstone National Park in Wyoming. A road that many visitors follow through the park is marked with arrows.



Complete the following.

1. Circle the symbol for point of interest on the key.
2. How many towns are shown on this map? _____
3. Find the town of Old Faithful. What other feature on the map also has this name? _____

4. How many places to find lodging are shown on the map?
- _____

5. Draw the symbol that stands for a camp.
- _____

Pretend that you are the bike rider who will make a trip through the park. Use the map to complete the activities below.

6. Start your bike trip at Madison. Put an X at your starting point.
7. Draw a line along the trail you would follow to go from Madison to the town of Old Faithful. Draw a circle around that town.
8. Now, continue your bike ride by going east. Draw a line along the road past Bridge Bay, and stop at the town of Lake to rest. Put an R on that town.
9. While you rest at Lake, you look at the map. You see that you are near the point where a river and lake meet. Write the names of the river and lake. _____
10. Continue the bike trip by riding north from Lake. Stop to look at the first point of interest you come to. What is it? _____
11. Now continue north. What is the next town you come to?
- _____
12. You decide to get something to eat at this town. Draw the symbol that tells you that food is sold there.
- _____
13. Continue the bike trip west to Norris. Put a box around that town.
14. Complete your all day bike trip by returning to the place where you began. Is this town a good place to end your ride?
- a. No, because the town does not have food or camping.
 - b. Yes, because the town has food and camping.
 - c. No, because the town has food but no camping.

Lesson 23

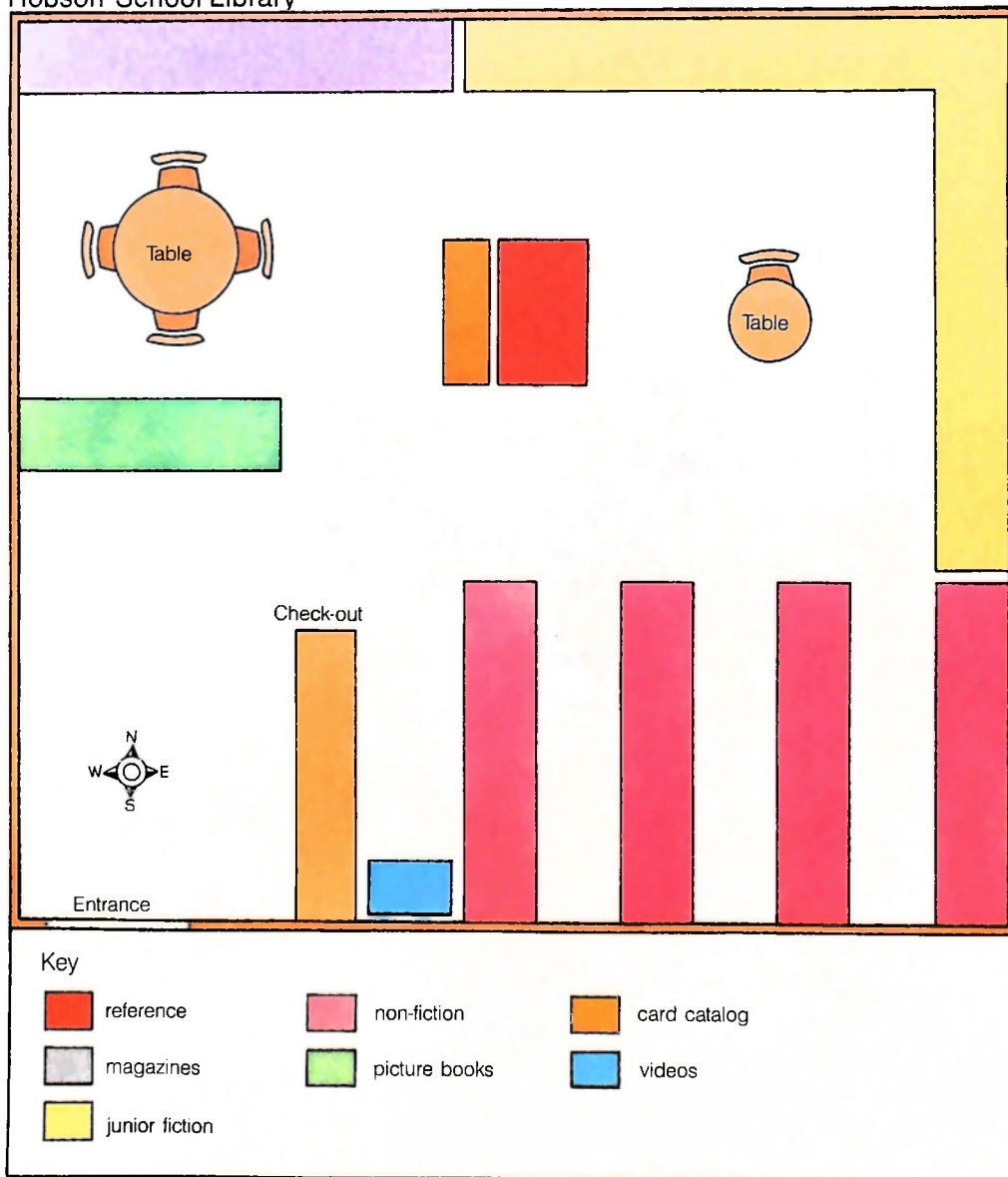
Solving Problems With Maps

Learn to: use a map to solve problems

Sometimes colors are used on maps to help you find things. It is very important to use the map key.

Look carefully at the map of Hobson school library below.

Hobson School Library



Use the map of the library to complete the following.

1. On which side of the library is the entrance located?
 - a. north
 - b. south
 - c. east
 - d. west
2. What color marks the junior fiction section?
 - a. yellow
 - b. purple
 - c. orange
3. On which side of the library would you find your favorite magazine?
 - a. north
 - b. south
 - c. east
 - d. west
4. You want to find a picture book for your younger sister. What color marks the section where you should look?
 - a. blue
 - b. green
 - c. pink
5. What is located north of the picture books?
 - a. videos
 - b. the check-out desk
 - c. table and chairs
6. Glen has to find information about frog books in the card catalog. What color marks the location of the card catalog in the library?
 - a. orange
 - b. yellow
 - c. red
7. Glen goes to the non-fiction section to find frog books. What color marks this section?
 - a. purple
 - b. blue
 - c. pink
8. What is located east of the card catalog?
 - a. magazines
 - b. reference
 - c. non-fiction
9. Selba wants to look at the videos. On which side of the library will she find them?
 - a. north
 - b. south
 - c. east
 - d. west
10. What is located west of the videos?
 - a. card catalog
 - b. non-fiction
 - c. check-out
11. Which table is the closest to the magazine section?
 - a. the table with four chairs
 - b. the table with one chair
12. Jane needs to pick up three books from the library. She does not want to waste a minute. She knows one book is in the junior fiction section, one book is in the reference section and one book is in the non-fiction section.

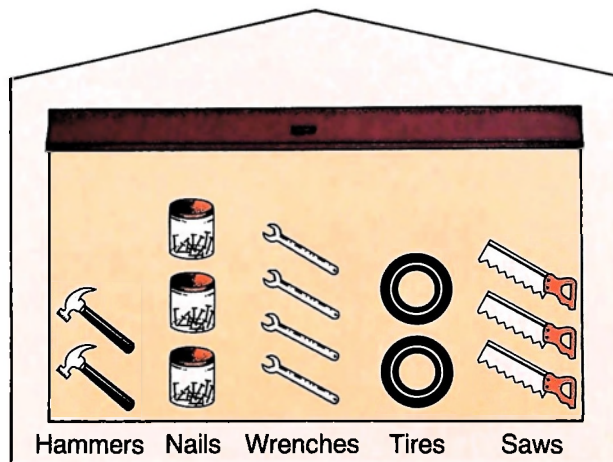
Draw the best route for Jane to follow through the library to find all of her books, and not go out of her way. Mark each of her stops with the letter S. Make sure her route ends at the check-out desk. How many stops did Jane make? _____

Pictographs

Learn to: read a pictograph

A **pictograph** is a graph that uses pictures to stand for objects. You read a pictograph by counting the pictures. The **labels** across the bottom or down the side tell what items have been counted. One picture stands for one item counted.

MR. LUPIN'S GARAGE

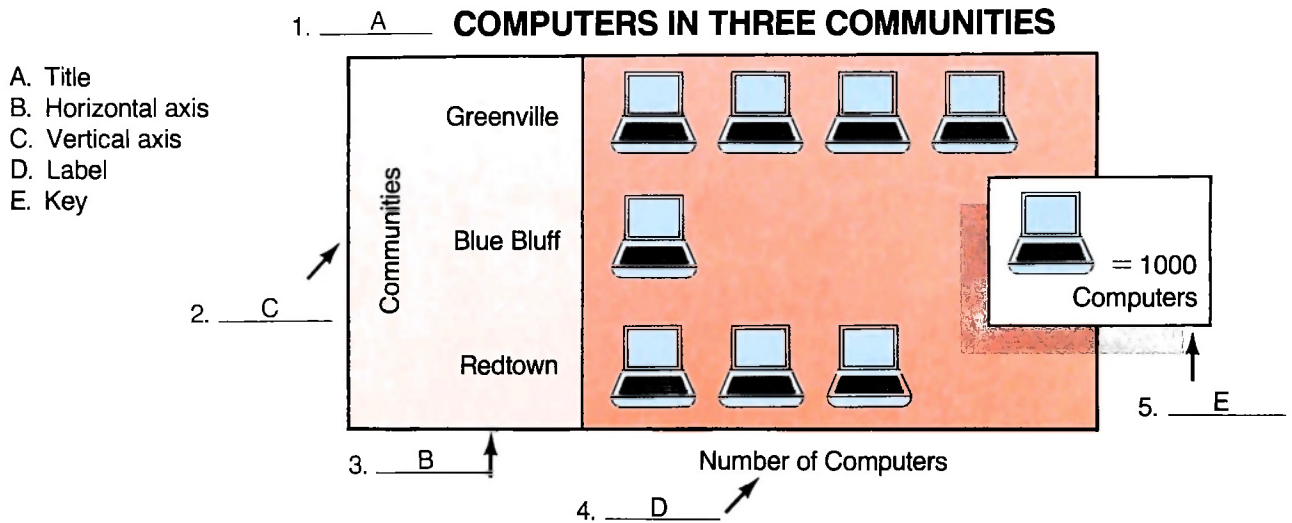


Circle the correct answer.

- How many hammers did Mr. Lupin find in his garage?
 - 1
 - 2
 - 4
- Mr. Lupin thought he only had one saw. How many did he find?
 - 2
 - 3
 - 4
- How many wrenches did Mr. Lupin find?
 - 2
 - 3
 - 4
- Mr. Lupin found more jars of nails than what other item?
 - tires
 - wrenches
 - saws
- What two items did Mr. Lupin find the same number of?
 - saws and hammers
 - wrenches and tires
 - tires and hammers
- Mr. Lupin found more saws, than which of these items?
 - wrenches
 - jars of nails
 - tires

Pictographs have special parts. The **title** tells what the graph is about. The **vertical axis** goes up and down, and the **horizontal axis** goes across the bottom. Labels along each axis name the objects and amounts shown on the graph. Some pictographs have **keys** to give more information about the graph.

This pictograph has numbered blanks for each graph part.



Now use the pictograph to answer the questions below.

7. What does the pictograph show?
 - a. the number of people living in three communities
 - b. the number of computers in three communities
 - c. how many towns have computers
8. How many computers does one computer picture stand for?
 - a. 1000
 - b. 10
 - c. 1
9. How many computers are there in Redtown?
 - a. 3
 - b. 1000
 - c. 3000
10. How many computers are there in Blue Bluff?
 - a. 20
 - b. 1
 - c. 1000
11. Which community has the most computers?
 - a. Redtown
 - b. Blue Bluff
 - c. Greenville
12. How many communities have more than 2000 computers?
 - a. 1
 - b. 2
 - c. 3

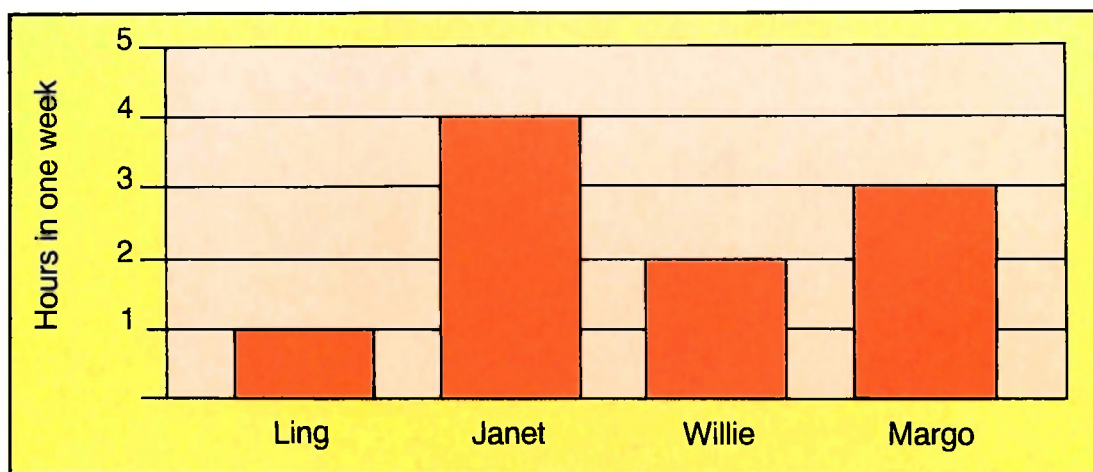
Bar Graphs

Learn to: find information on a bar graph
compare information on a bar graph

A **bar graph**, like a pictograph, compares numbers of things. A bar graph has a title. It has a **vertical axis** going up and down, and a **horizontal axis** going across. The shaded spaces on the graph form rectangles, or bars. These bars may run across the graph or up and down.

This bar graph shows how some third-grade students spent their time after school. Look carefully at the graph and locate its parts.

HOURS SPENT PLAYING SOCCER

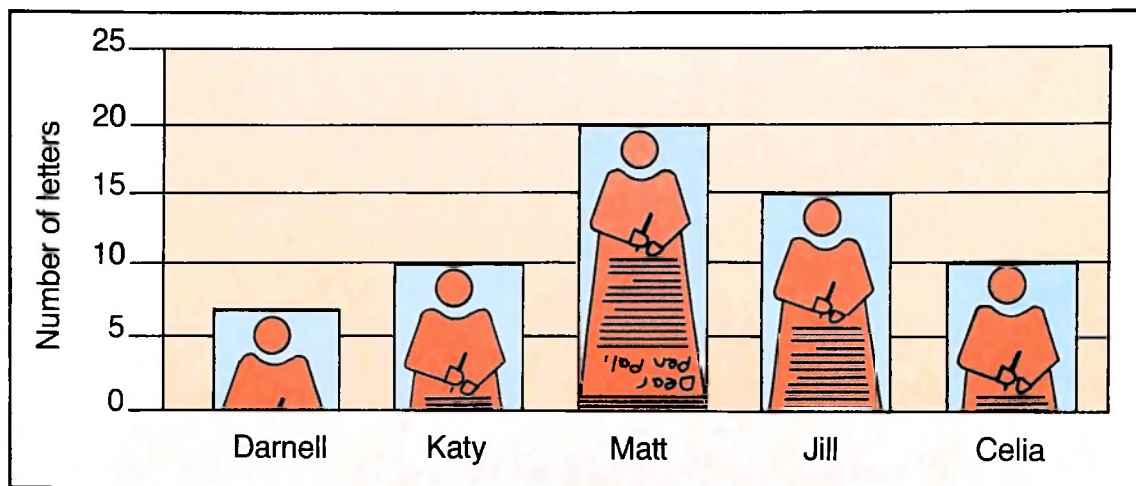


Circle the correct answer.

- What does this graph show?
 - time spent doing homework
 - time spent playing piano
 - time spent playing soccer
- How many students are shown on the graph?
 - 2
 - 4
 - 5
- How many hours did Willie spend playing soccer?
 - 1
 - 2
 - 4
- Who played the fewest hours of soccer?
 - Ling
 - Margo
 - Janet
- Who played the most hours of soccer?
 - Ling
 - Margo
 - Janet
- Who played fewer hours of soccer than Willie?
 - Margo
 - Ling
 - Janet

This graph shows another activity students of the same class took part in. Read the graph carefully. Notice exactly where each bar ends.

LETTERS TO PEN PALS



Circle the correct answer.

7. To whom did the class write their letters?
 - a. newspapers
 - b. pen pals
 - c. the President
8. Who wrote the most letters in the class?
 - a. Matt
 - b. Katy
 - c. Jill
9. How many letters did Jill write?
 - a. 5
 - b. 10
 - c. 15
10. What was the least number of letters written by a student?
 - a. 6
 - b. 10
 - c. 15
11. Who wrote the same number of letters as Celia?
 - a. Matt
 - b. Darnell
 - c. Katy
12. How many letters did Darnell write?
 - a. 6
 - b. 10
 - c. 15

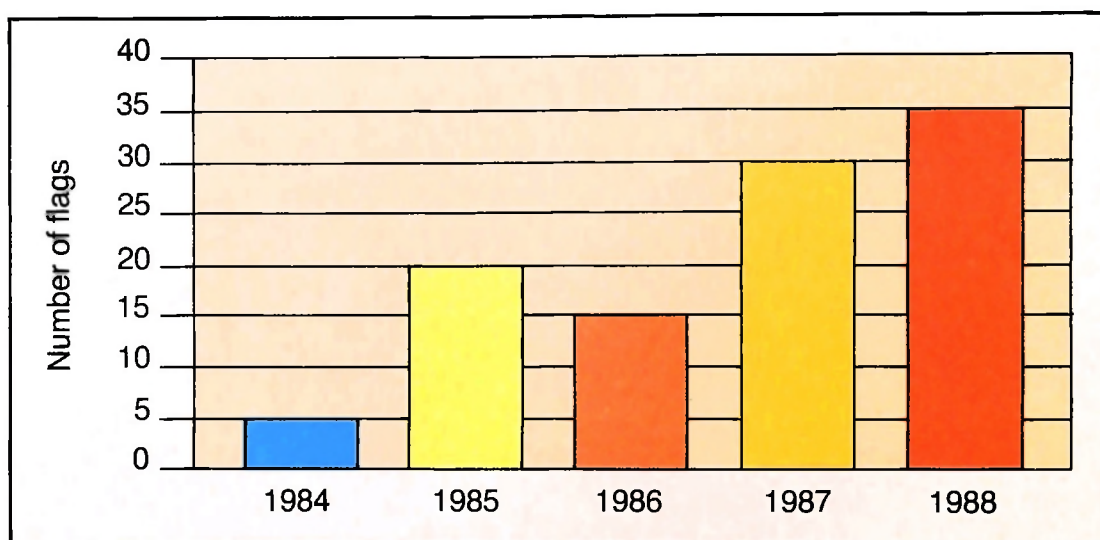


Reading Bar Graphs

Learn to: compare and use information on a bar graph

The Young Citizens Club of Crayfish Corners sells United States flags to raise money. The bar graph below shows their flag sales for five years.

FLAG SALES

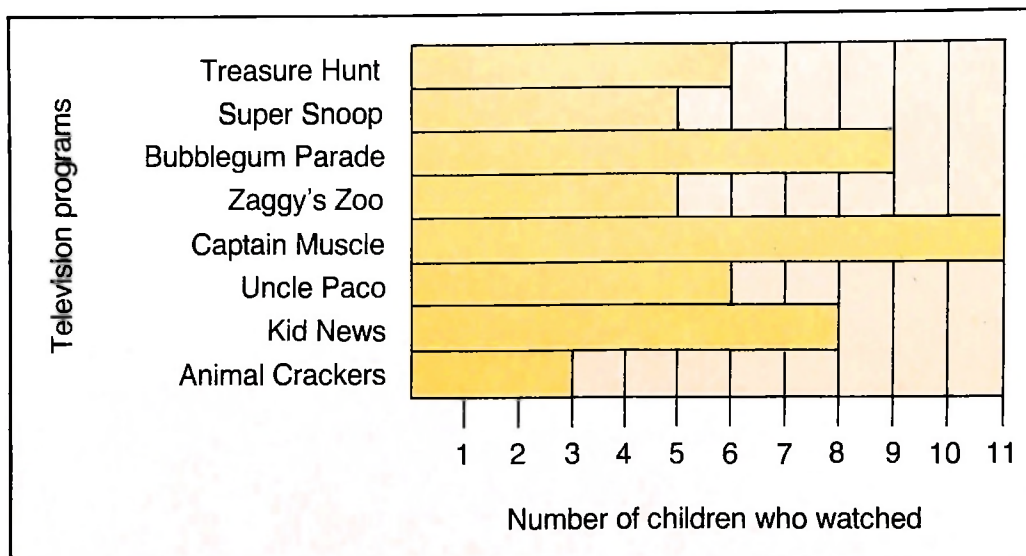


Circle the correct answer.

- How many flags did the club sell in 1985?
a. 3 b. 15 c. 20
- In what year were the fewest flags sold?
a. 1984 b. 1986 c. 1988
- How many flags did the club sell in 1987?
a. 6 b. 25 c. 30
- In what year did the club sell only 15 flags?
a. 1985 b. 1986 c. 1988
- In what year were the most flags sold?
a. 1984 b. 1986 c. 1988
- The club sold more flags in 1986 than in what other year?
a. 1984 b. 1985 c. 1988
- How many flags did the club sell in 1987 and 1988, together?
a. 35 b. 50 c. 65
- After looking at the graph, what can the club say about their flag sales?
a. Sales have been going down every year.
b. Sales have been going up since 1986.
c. Sales have been going up every year.

The graph below shows favorite television programs of students in Mr. Fuller's class. It is an example of a horizontal bar graph. The numbers run from left to right.

FAVORITE PROGRAMS



Circle the correct answer.

9. How many students liked Treasure Hunt best?
 - a. 3
 - b. 4
 - c. 6
10. Which program was liked by the most students?
 - a. Captain Muscle
 - b. Kid News
 - c. Super Snoop
11. Which program was liked by the fewest students?
 - a. Animal Crackers
 - b. Zaggy's Zoo
 - c. Super Snoop
12. How many students liked Bubblegum Parade best?
 - a. 6
 - b. 10
 - c. 9
13. Which two programs were the favorites of the same number of students?
 - a. Treasure Hunt and Zaggy's Zoo
 - b. Animal Crackers and Bubblegum Parade
 - c. Uncle Paco and Treasure Hunt
14. Which program was the favorite of only 8 students?
 - a. Animal Crackers
 - b. Kid News
 - c. Uncle Paco
15. List the three programs Mr. Fuller's students liked best.

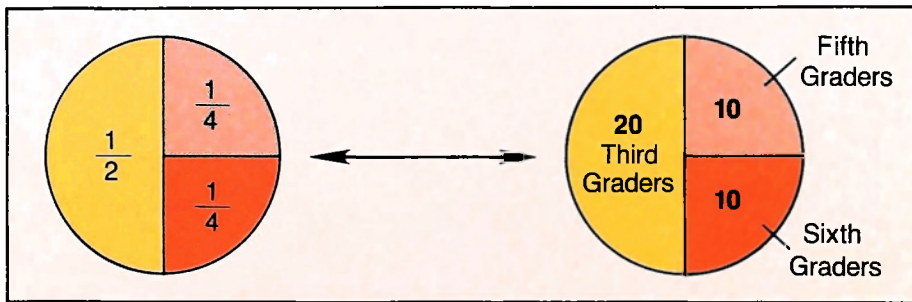
Circle Graphs

Learn to: read a circle graph

A **circle graph** shows one whole thing divided into parts. It looks like a pie cut into pieces. Sometimes it is called a pie graph. The title tells what the graph is about. The lines cut the graph into parts. The numbers on the graph tell you how many are in each part.

The circle graphs below show the same information in two different ways. Each graph shows a whole group of bus riders, divided into parts. Look at each graph carefully.

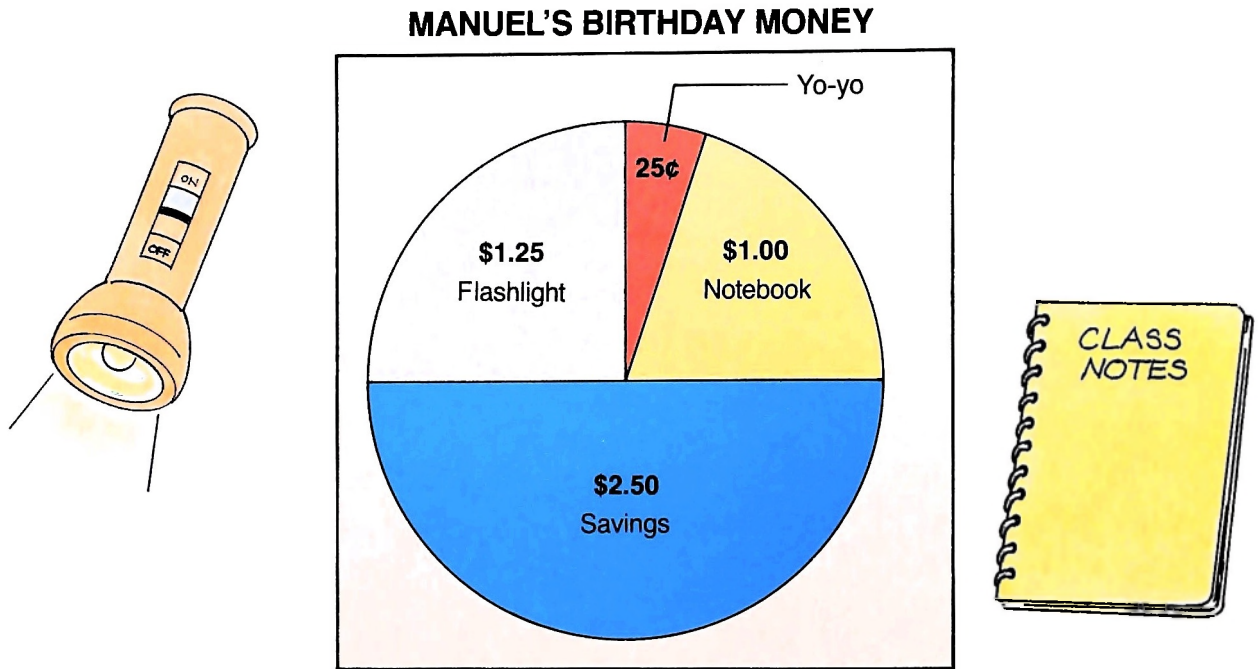
RIDERS OF BUS 54



Circle the correct answer.

- What do both graphs show?
 - all children in the third grade
 - all riders of Bus 54
 - all riders of Bus 77
- How many third graders ride the bus?
 - 40
 - 20
 - 10
- What part of Bus 54 riders are third graders?
 - $\frac{1}{2}$
 - $\frac{1}{4}$
- How many sixth graders ride the bus?
 - 40
 - 20
 - 10
- What is the total number of students that ride Bus 54?
 - 40
 - 20
 - 10
- What two grades have the same number of bus riders?
 - third and fifth
 - third and sixth
 - fifth and sixth

Read the title and labels on this pie graph carefully. Use the graph to answer the questions.



Complete the following.

7. What does this pie graph show?
 - a. Manuel's favorite games
 - b. how Manuel used his birthday money
 - c. how much Manuel spent on school supplies
8. How much money did Manuel put into savings?
 - a. \$2.50
 - b. \$1.25
 - c. \$1.00
9. What did Manuel spend the least on?
 - a. notebook
 - b. flashlight
 - c. yo-yo
10. What did Manuel spend on a flashlight?
 - a. 25¢
 - b. \$2.50
 - c. \$1.25
11. How much did Manuel spend all together?
 - a. \$2.50
 - b. \$1.00
 - c. \$1.25
12. What did Manuel do with half of his money?
 - a. saved it
 - b. spent it on a yo-yo
 - c. spent it on a flashlight

Tables

Learn to: read information on a table

A **table** shows information or facts in an orderly way. The table below was made by the Steinway School health club. They asked the lunchroom manager what students liked to eat for lunch. Their table shows popular lunches and how many of each were sold during the months listed.

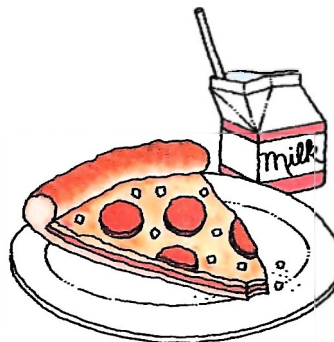
Types of Lunches Sold at Steinway School

| | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. |
|---------------|-------|------|------|------|------|------|
| Pizza | 150 | 122 | 201 | 113 | 145 | 129 |
| Taco Salad | 100 | 95 | 101 | 99 | 102 | 90 |
| Fried Chicken | 50 | 93 | 0 | 88 | 53 | 81 |

Circle the correct answer.

- What does the table show about Steinway School?
 - total number of students
 - number of books sold
 - types of lunches sold
- Which lunch was the most popular every month?
 - pizza
 - taco salad
 - fried chicken
- What months are shown on the table?
 - September through February
 - December through May
 - September through December
- How many students bought pizza in October?
 - 95
 - 122
 - 150
- In which month were the least number of pizza lunches sold?
 - November
 - September
 - December
- In which month were no chicken lunches sold?
 - September
 - October
 - November

7. How many students bought taco salad for lunch in February?
 - a. 90
 - b. 102
 - c. 81
8. How many students bought pizza in September?
 - a. 150
 - b. 100
 - c. 122
9. What happened in December with lunch sales?
 - a. more fried chicken than pizza was sold
 - b. more taco salad than fried chicken was sold
 - c. no fried chicken was sold
10. The lunchroom manager wants to change one of the lunches for next year. Which one should he replace?
 - a. pizza, because no one likes it
 - b. fried chicken, because it is the least popular
 - c. taco salad, because it is the least popular



Now, make your own table of favorite school lunches. Ask members of your class to name their favorite lunch sold in the lunchroom for each of the past 3 months.

Enter your information in the table below as the Steinway students did. Be sure to give your table a title. You may want to make a second table to show favorite lunches of students who bring their lunches from home.

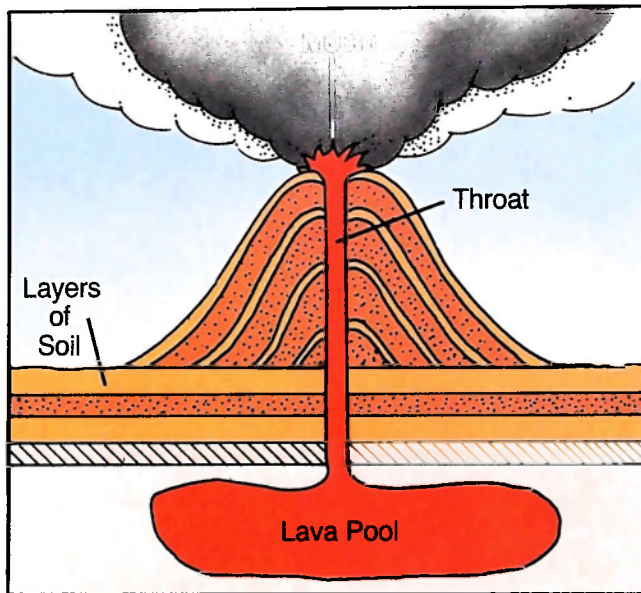
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| | | | |
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| | | | |
| | | | |

Diagrams

Learn to: read a diagram

A **diagram** is used to show the parts of something. It helps you understand how that particular thing is put together, or how it works. The diagram below shows the inside of a volcano. Each part of the volcano is labeled.

INSIDE A VOLCANO



Complete the following.

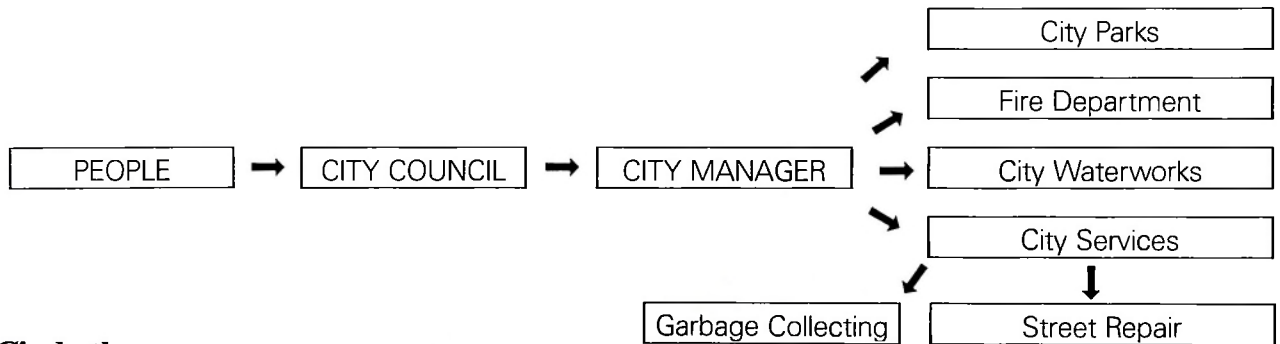
1. Find the lava pool of the volcano. Put an X on it.
2. What does the diagram show about the earth above the lava pool?
 - a. It has many layers.
 - b. It has only one layer.
 - c. It is filled with huge rocks.
3. What connects the lava pool to the mouth of the volcano?
 - a. clouds
 - b. throat
 - c. mouth
4. On the diagram, draw a line from the lava pool to the mouth of the volcano.
5. What can you tell about a volcano from the diagram?
 - a. A volcano is always close to an ocean.
 - b. A volcano is high like a mountain.
 - c. A volcano is flat like a plain.
6. Why do you think there are clouds of smoke at the mouth of the volcano?
 - a. to show that the lava is burning hot
 - b. to show it is a rainy day
 - c. to make the diagram interesting

Charts

Learn to: read a chart

a **chart** shows you how something is organized. A chart can also show how the parts of something work together. Charts often use arrows to show how different parts are connected.

The chart below shows how some city workers get their jobs. The arrow between PEOPLE and CITY COUNCIL shows that the people choose the city council. Follow the arrows to see who has the power to choose other city workers.



Circle the correct answer.

- Who chooses the city manager?
 - people
 - city council
 - fire department
- Who is in charge of workers in the city waterworks?
 - city manager
 - garbage collectors
 - city council
- What two departments make up the city services department?
 - fire department and city council
 - city parks department and police officers
 - garbage collection and street repair departments
- Who would probably hire a new fire chief?
 - people
 - city manager
 - city building department
- Who chooses the workers for the city parks and buildings department?
 - people
 - city manager
 - fire department
- What department would you call if no one collected your garbage?
 - city services
 - fire department
 - city waterworks

Glossary

aerial photograph a picture taken from above a place, from an airplane or helicopter

bar graph a graph that uses bar shapes to compare amounts or quantities

border (same as **boundary**) line drawn on a map to show where one country or state ends, and another begins

caption the words by a picture that tell what it is about

cardinal directions the four main directions on a map: north, south, east and west

cartographer a person who draws maps

chart a picture that shows how to do something or how things are organized

circle graph (same as **pie graph**) a graph that forms a circle divided into parts, to compare amounts or quantities

coast (same as **coastline**) land along a large body of water

compass rose a symbol on a map that shows the four cardinal directions

continent a large, continuous land mass

diagram a drawing that gives information, or shows how one thing affects another

equator an imaginary line halfway between the North Pole and South Pole

globe a ball-shaped model of the earth

grid a pattern of lines drawn on a map to help locate places

hemisphere half of the earth

highway map map that shows the roads that go through an area

horizontal axis the base line that goes across a graph from side to side

interstate highway a highway that goes through more than one state

island a body of land completely surrounded by water

map key a list of symbols used on a map and what they mean

map scale shows how much distance on a map stands for real distance on earth

map symbol a picture used to stand for something

mountains high, steeply raised land, higher than a hill

North Pole the point farthest north on the earth

ocean a large body of water

peninsula a body of land that is almost completely surrounded by water

pictograph a graph that uses pictures in a row to show quantities being compared

plains flat or rolling land

point of interest a landmark shown by a symbol on the map

satellite an object that travels around the earth through space

South Pole the point farthest south on the earth

state highway a road that stays within a state and does not cross its borders

survey careful measurement of land area using special tools

table shows facts and information in an orderly way

valley low land that lies between hills or mountains

Western Hemisphere the half of the world that has North and South America in it

Answer Key

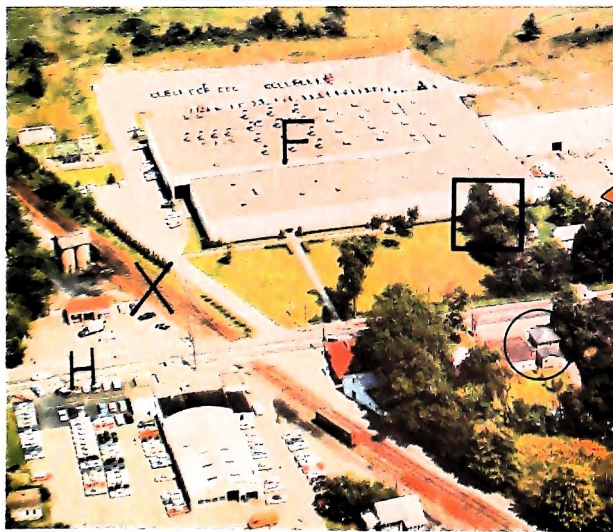
Lesson 1

pages 2-3

- | | |
|-------------------------------------|-------|
| 1. c | 7. a |
| 2. a | 8. b |
| 3. c | 9. c |
| 4. b | 10. a |
| 5. (any two) fish, corn, pumpkin | 11. b |
| | 12. b |
6. The stream gave the Indians fish to eat, and water to drink and to water their vegetables. They also needed the stream for transportation. They needed the trees in the forest for firewood, to make houses and to make tools.

Lesson 2

pages 4-5



- 1.-5. See photo for answers.
- | | |
|------|-------|
| 7. a | 10. b |
| 8. c | 11. a |
| 6. b | 12. b |

Lesson 3

pages 6-7

- | | | |
|--------|-----------------------------------|---------------------------------------|
| 1. a | 7. a careful measuring of an area | 10. a survey and an aerial photograph |
| 2. c | | |
| 3. b,c | 8. a person who draws maps | 11. It was taken by a satellite. |
| 4. b | | |
| 5. a | 9. a book of maps | 12. aerial photograph |
| 6. a | | |

Lesson 4

pages 8-9

- | | | |
|------|------|-------|
| 1. b | 5. b | 9. b |
| 2. a | 6. c | 10. c |
| 3. c | 7. b | 11. b |
| 4. b | 8. a | 12. a |

Lesson 5

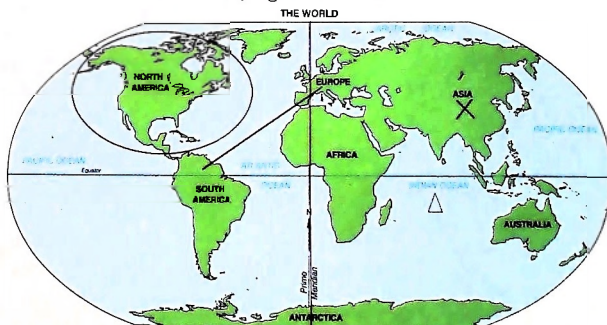
pages 10-11

| | | | | | | | | |
|---|----------|---|---|----------|---|---|----------|---|
| W | <u>N</u> | E | W | <u>N</u> | E | W | <u>N</u> | E |
| | S | | | S | | | S | |

- | | | |
|------|------|------|
| 1. a | 4. b | 7. c |
| 2. c | 5. a | 8. a |
| 3. d | 6. c | |

Lesson 6

pages 12-13



- 1.-6. See map for answers.
- | | |
|------|-------|
| 7. c | 9. c |
| 8. a | 10. b |

Lesson 7

pages 14-15

- | | | |
|------|-------|-------|
| 1. a | 6. b | 11. c |
| 2. d | 7. a | 12. a |
| 3. a | 8. b | 13. b |
| 4. c | 9. b | 14. a |
| 5. a | 10. b | |

Lesson 8

pages 16–17

- | | | |
|------|-------|-------|
| 1. a | 6. a | 11. a |
| 2. d | 7. d | 12. c |
| 3. b | 8. c | 13. b |
| 4. a | 9. b | 14. a |
| 5. b | 10. c | 15. b |

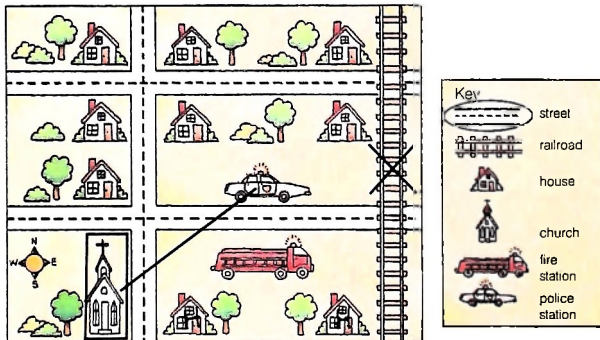
Lesson 9

pages 18–19

- | | | |
|------|-------------------|-------------------|
| 1. d | 8. g | 13. h, human-made |
| 2. h | 9. d, natural | 14. b, natural |
| 3. c | 10. g, human-made | 15. c, natural |
| 4. b | 11. e, natural | 16. f, human-made |
| 5. a | 12. a, natural | |
| 6. e | | |
| 7. f | | |

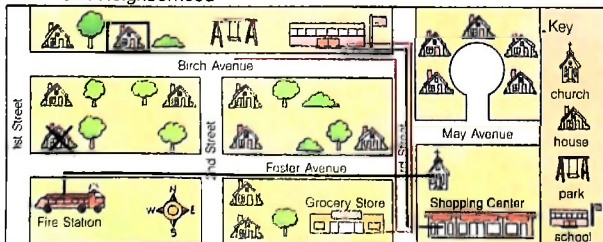
Lesson 10

pages 20–21



- 1.–4. 7. See map for answers.
5. 9 6. 1 8. c
- 9.–10. See map for answers.
11. c
12. b
13. c
14. c

East Point Neighborhood

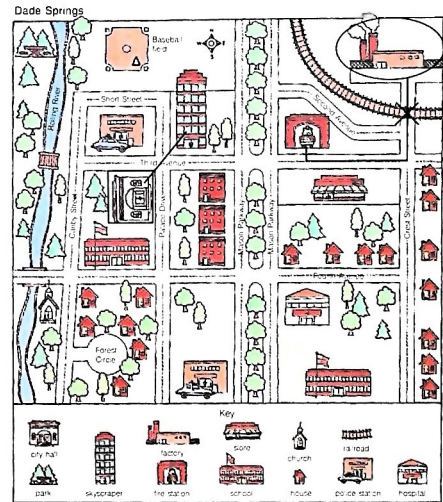


15. See map for answers.
16. See map for answers.

Lesson 11

pages 22–23

- 1.–6. See map for answers.
7. b
8. c
9. a
10. b
11. d
12. a
13. c
14. Turn west on Fourth Avenue. Travel west on Fourth Avenue until you reach Canby Street, and turn south.



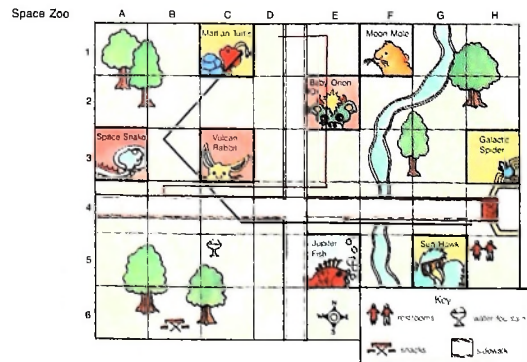
Lesson 12

pages 24–25

- | | | | | | |
|------|------|------|------|-------|-------|
| 1. a | 3. c | 5. b | 7. b | 9. c | 11. b |
| 2. b | 4. a | 6. d | 8. a | 10. c | 12. a |

Lesson 13

pages 26–27



1. Martian Turtle
2. Baby Orion Ox
3. Vulcan Rabbit
4. C-5
5. E-5
6. snacks
7. H-3
8. G-5
9. Space Snake
10. See map for answers. (Red line is correct if you followed the sidewalk.)

Lesson 14

pages 28–29

- | | | |
|--------------------------|-------------|-----------------|
| 1. 2 inches, 100 feet | 4. 100 feet | 8. north |
| 2. 1 inch, 50 feet | 5. 150 feet | 9. 100 feet |
| 3. 150 feet | 6. 250 feet | 10. 200 feet |
| | 7. west | 11. east |
| | | 12. east, south |

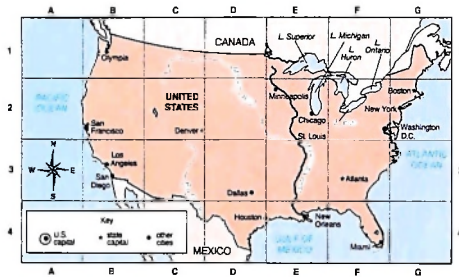
Lesson 15

pages 30–31

- | | | |
|------|------|-------|
| 1. b | 5. d | 9. c |
| 2. a | 6. c | 10. b |
| 3. a | 7. a | 11. c |
| 4. a | 8. c | 12. a |

Lesson 16

pages 32–33



- | | | | |
|----------------------------|-------------------------------------|-------|-------|
| 1. See map for answers. | 4. Atlantic Ocean, Pacific Ocean | 8. b | 13. a |
| 2. blue | 5. a | 9. c | 14. b |
| 3. See map for answers. | 6. c | 10. a | 15. c |
| | 7. a | 11. c | |
| | | 12. b | |

Lesson 17

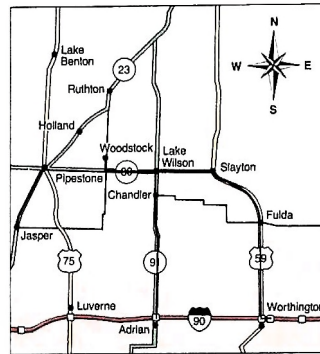
pages 34–35



- | |
|-----------------------------|
| 1. a |
| 2. b |
| 3. a |
| 4. a |
| 5. d |
| 6. b |
| 7. a |
| 8. c |
| 9. c |
| 10. b |
| 11. b |
| 12. See map for answers. |
| 13. See map for answers. |
| 14. See map for answers. |

Lesson 18

pages 36–37



- | |
|-----------------------------|
| 1. a |
| 2. b |
| 3. a |
| 4. b |
| 5. c |
| 6. a |
| 7. c |
| 8. a |
| 9. a |
| 10. b |
| 11. See map for answers. |
| 12. See map for answers. |

Lesson 19

pages 38–39



- | | | | |
|----------------------------|------|-----------------------------|-----------------------------|
| 1. ----- | 4. c | 8. a | 11. See map for answers. |
| 2. See map for answers. | 5. d | 9. Canada | 12. See map for answers. |
| 3. b | 6. c | 10. See map for answers. | |
| | 7. b | | |

Lesson 20

pages 40–41

- | | | |
|-----------|--------------|------|
| a. plains | e. mountains | 4. c |
| b. hills | 1. b | 5. b |
| c. peak | 2. c | 6. a |
| d. valley | 3. c | |

Lesson 21

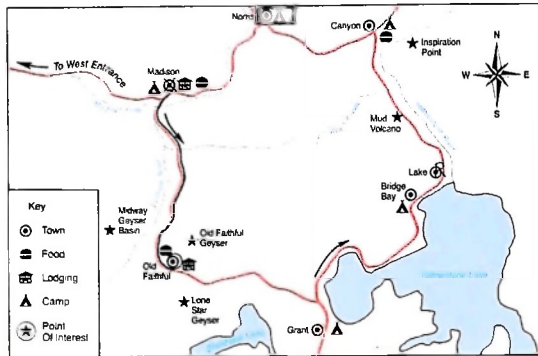
pages 42–43

- | | | |
|--------------|----------|------|
| a. island | e. ocean | 3. b |
| b. coastline | f. river | 4. c |
| c. lake | 1. a | 5. a |
| d. peninsula | 2. a | 6. b |

Lesson 22

pages 44-45

YELLOWSTONE NATIONAL PARK

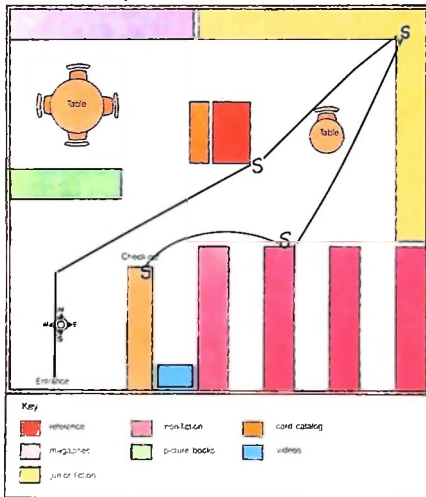


1. See map for answers.
2. 7
3. Old Faithful Geyser
4. 2
5. A
- 6.-8. See map for answers.
9. Yellowstone River, Yellowstone Lake
10. Mud Volcano
11. Canyon
12. S
13. See map for answers.
14. b

Lesson 23

pages 46-47

Hobson School Library



1. b
2. a
3. a
4. b
5. c
6. a
7. c
8. b
9. b
10. c
11. a
12. See map. 4 stops

Lesson 24

pages 48-49

1. b
2. b
3. c
4. a
5. c
6. c
7. b
8. a
9. c
10. c
11. c
12. b

Lesson 25

pages 50-51

1. c
2. b
3. b
4. a
5. c
6. b
7. b
8. a
9. c
10. a
11. c
12. a

Lesson 26

pages 52-53

1. c
2. a
3. c
4. b
5. c
6. a
7. c
8. b
9. c
10. a
11. a
12. c
13. c
14. b
15. Captain Muscle, Bubblegum Parade, Kid News

Lesson 27

pages 54-55

1. b
2. b
3. a
4. c
5. a
6. c
7. b
8. a
9. c
10. c
11. a
12. a

Lesson 28

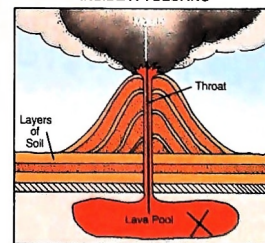
pages 56-57

1. c
2. a
3. a
4. b
5. c
6. c
7. a
8. a
9. b
10. b

Lesson 29

page 58

INSIDE A VOLCANO



1. See map for answers.
2. a
3. b
4. See map for answers.
5. b
6. a

Lesson 30

page 59

1. b
2. a
3. c
4. b
5. b
6. a

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SOCIAL STUDIES SKILLS

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|---|--------------|
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Modern Curriculum Press
Cleveland • Toronto

ISBN 0-8136-2134-8



9 780813 621340